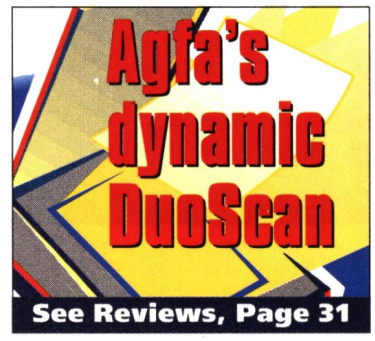
MacWEEK

06.10.96 | *The Newsweekly for Macintosh Managers* | VOLUME 10 NUMBER 23



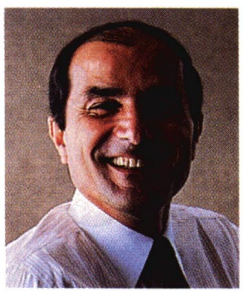
NEWS ANALYSIS

Marketing, consolidation hallmarks of Apple COO

By Matthew Rothenberg and David Morgenstern

As Gilbert Amelio continues to reshape Apple in his own image, he has searched the company's ranks for a second-in-command who speaks his own language.

The Apple CEO seems to have found such an executive in Marco Landi, 52, named chief operating officer in May after just 14 months as president of Apple Europe.



Gregarious Marco Landi is chief operating officer and Apple's No. 2 man after 25 years at TI.

Landi this month took the helm of four new product divisions — Macintosh, Alternative Platforms, Information Appliances and Imaging — as well as worldwide sales, segment marketing, Claris Corp., manufacturing operations and the AppleAssist customer-support program (see 05.27.96, Page 4).

According to observers in the United States and Europe, Landi's drive to streamline Apple's European divisions and his focus on consumer markets echo some of Amelio's own strategies.

Since taking over Apple Europe in March 1995, Landi has overhauled the organization's de-

See Landi, Page 74

AppleShare to cast Net

Mac servers will board TCP/IP

By James Staten

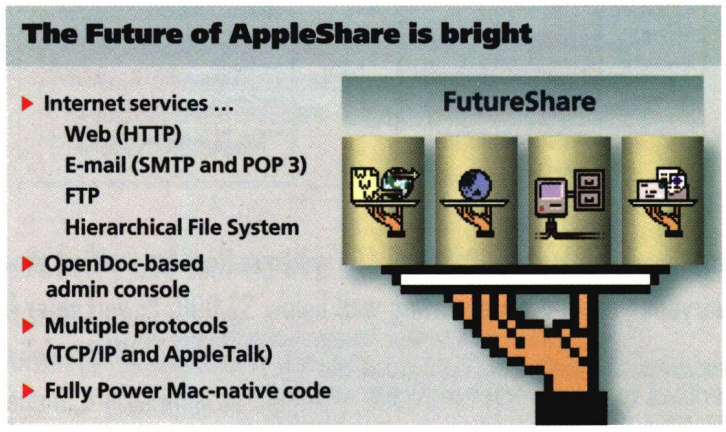
AppleShare will soon serve much more than its usual AppleTalk fare. Sources said a major overhaul in the works for the Mac-based file server will turn it into an Internet platform with OpenDoc-based administration.

The new version, code-named FutureShare and expected to ship this fall, will deliver many types of data via the Web's HTTP (Hypertext Transport Protocol) as well as SMTP (Simple Mail Transfer Protocol), Point-to-Point Protocol 3 (POP 3) and FTP. According to sources, FutureShare will be able to deliver its core AFP (AppleTalk Filing Protocol) onto TCP/IP networks. This change will allow non-Mac users access to Mac files and folders via FTP without special client software.

In general, FutureShare will function over both AppleTalk and TCP/IP and will be optimized for the Mac OS' new networking architecture, Open Transport. Sources said the server software will be fully Power Mac-native and have a new caching architecture.

The new server will reportedly feature an administration interface built in OpenDoc (see 08.21.95, Page 1). Called OpenAdmin, the new server-management console will provide components for configuring and maintaining FutureShare. Third-party developers will be able to add components to OpenAdmin and replace its built-

See FutureShare, Page 76



COMPARISON

Java development tools move beyond minimalism

By Stephan Somogyi

Mac-based development systems for Sun Microsystems Inc.'s Java language have evolved into usable tools in a remarkably short period of time. Java is still rooted in conventional development models, however, meaning that Java developers are more likely to come from the existing pool of C and C++ programmers than from the multimedia universe.

REVIEW

Even though Netscape Communications Corp. has produced a Java-capable browser for the Mac, it's not as stable or full-featured as its counterparts in the land of Intel-powered Microsoft Windows boxes. But client-side weaknesses have not stopped development of Java applets on the Mac, the traditional home of interactive content. With Java tools from Natural Intelligence Inc., Symantec Corp. and Metrowerks Inc., there's something for technically advanced dabblers as well as

See Java, Page 31

NEWSPAPER PERIODICALS

Speedy CPUs race toward Expo debuts

By Joanna Pearlstein

Mac systems may hit 200-MHz speeds sooner than predicted.

Sources said Apple, DayStar Digital Inc. and Power Computing Corp. will each roll out systems this summer using the long-anticipated PowerPC 604e processor.

In late July, Power Computing of Round Rock, Texas, will reportedly unleash 200- and 240-MHz PowerPC 604e-based systems. At this August's Macworld Expo in Boston, Apple and DayStar Digital of Flowery Branch, Ga., will release systems that use 180-MHz PowerPC 604e processors, according to sources.

Apple is aiming to ship single- and dual-processor versions of the Power Mac 9500 running at 180 MHz at Macworld Expo, sources said, while DayStar will reportedly ship two- and four-

See Speed, Page 75

RAM prices bottom out

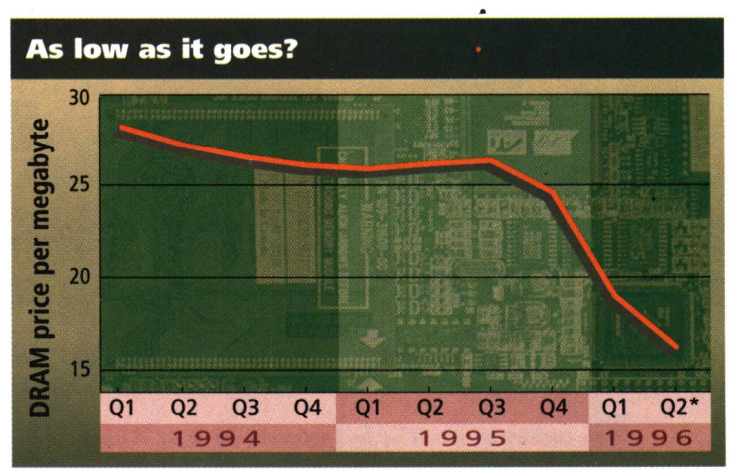
By Joanna Pearlstein

It's a great time to buy RAM, industry observers say, because current prices are so low they can only go higher.

A combination of excess inventory and international price wars has driven down prices for dynamic RAM during the past several months, but that trend may be nearing its end. Last week 8-Mbyte, 72-pin SIMMs sold for $65 to $90; comparable chips cost more than $300 a year ago.

"It's a big-time buyers' market for DRAM," said Roger Kasten, chief technology officer and vice president of product development at RAM vendor Newer

See RAM, Page 76



** Projected figures. Source: Dataquest Inc.*

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Up to About here

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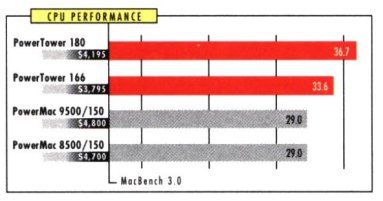

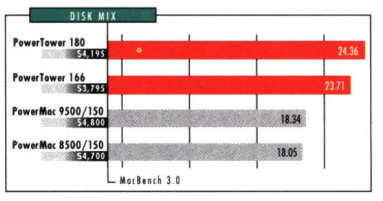

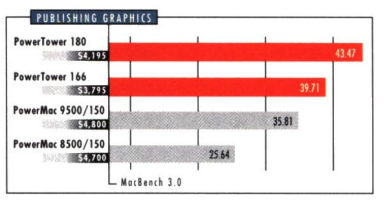

Power Computing has designed the world's fastest Mac OS system - again. Based on the PowerPC 604 running at a blazing 180 or 166MHz, PowerTower is more than 20% faster and more than 20% less expensive than even the fastest Apple - the PowerMac 9500/150. Power Computing's new PowerTower is the highest-performing, most reliable Mac OS system available today for serious power users.

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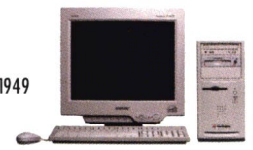

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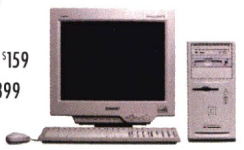

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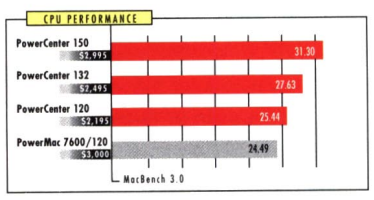

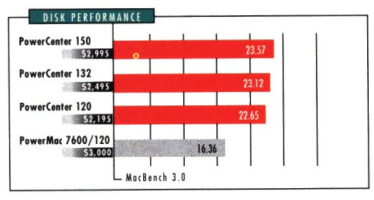

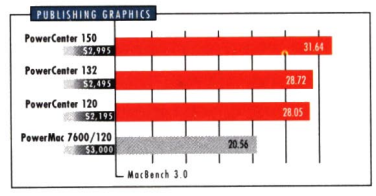

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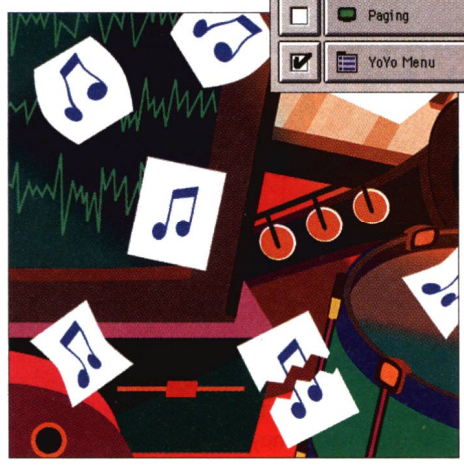
Mixing it up: Automated digital audio tools for the Mac. See GA, Page 16.

Ups and downs of computer telephony solved with YoYo. See Gateways, Page 22.



Audio production software is music to the ears of composers, editors and other audio professionals. See Solutions, Page 39.

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With digital audio tools, users can change the pitch, manipulate the volume and squeeze a full orchestra onto their Macs.

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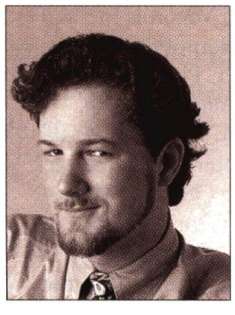
MACWEEK INSIDER STEPHEN HOWARD

I gotta wear shades

Screw Windows NT — I want FutureShare running on the Mac OS. It's been long in coming, but it's about time Apple created a proper server platform.

Of course, FutureShare isn't really a *proper* server. No, you'd need Novell NetWare or Unix or Windows NT for that, says the conventional wisdom. Even Apple believed that line for years as it worked fruitlessly on NetWare for PowerPC and various flavors of niche Unix servers. Meanwhile, AppleShare was winning dirty by selling in record numbers to every segment of the Macintosh market.

AppleShare is low-end, but it works. It's reliable and easy to use. A perpetual loser in benchmark tests, AppleShare is the brand-name favorite of the Mac masses, who know a good thing when they see it. The current Apple Workgroup Server bundles are terrific values, combining Mac hardware with AppleShare and a slew of networking tools.



Even so, it's clear that Apple hasn't done much with AppleShare in a long time. With FutureShare, I'm happy to see Apple pushing the Mac OS server model forward and adding significant new features.

Of course, it's going to mess it up.

The genius of AppleShare, such as it is, is simplicity and reliability. By having modular Internet add-ons and an extensible administrative console, that inherent elegance will be lost.

I can just see the hodgepodge of network meters, inventory tracking parts, alarms and analyzers being tacked on to the trusty AppleShare Admin. The variety brought by OpenDoc will be wonderful, but the management structure is sure to be less stable.

Likewise, the Internet functions of FutureShare will expand the horizons for Mac-based servers, but there be dragons out there. Internet tools get revved way too frequently to sustain the sort of quality-assurance testing that Apple normally engages in. If third parties get into the action, Apple won't even own the code to test. The inevitable chaos will surely make some people wish for AppleShare 4.2.x, but I say a frenetic server environment is a sign of life.

Apple can have its cake and eat it too, however. The company can use FutureShare to right some past wrongs, make money, expand the market and offer customers the dependability that is central to AppleShare's promise. Here's how:

Apple can use FutureShare to right some past wrongs and make money.

First, unbundle the server software. Apple can and should sell FutureShare along with preconfigured server boxes, but the company should also let customers make up their own minds about hardware. Along the way, Apple should price AppleShare realistically; I suggest $599.

Second, license AppleShare to clone makers. There's nothing special about Apple's Workgroup Servers that would prevent Power Computing Corp. or Motorola Inc. from improving on them. I'm sure current and future cloners would appreciate having something new to bundle with their fastest machines.

Third, don't develop any more OpenDoc administrative parts or Internet add-ons. Apple should point the way with new FutureShare software, but then it should recruit independent developers to write the next round of components. Apple can pick the best ones and create bundles for different markets, as it has already. If Apple continues into the market for LAN utilities and Internet servers, it will stomp on its smaller, better partners.

Fourth, test FutureShare bundles with the same (or better) quality standards that are used today for AppleShare. Customers must be able to rely on an out-of-the-box server setup and still enjoy an open platform with many add-ons.

Fifth, lock a team of Mac OS programmers in a room for six months, feed them well and tell them not to come out until they've doubled the speed of the current Mac File Manager. We can't wait for Copland to get decent disk performance from FutureShare. □

Stephen Howard is MacWEEK's executive editor/news. He welcomes feedback at stephen_howard@zd.com.

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Rev nails bugs in System 7.5.3

By Clifford Colby

Apple released late last week System 7.5.3 Revision 2, a bug-fix update to the latest version of the Mac OS.

Apple said the minor enhancement to System 7.5.3, code-named Buster, squashes a handful of bugs on some PowerBooks running the popular RAM Doubler from San Mateo, Calif.-based Connectix Corp. It also fixes a variety of problems on PowerBook 5300 and PowerBook Duo 2300 machines, PowerBook 200- and 500-series systems that have been upgraded to PowerPC and PCI Power Macs. It also speeds performance, Apple said.

Apple said PowerBooks running RAM Doubler can crash when they are awakened. System 7.5.3 Revision 2 fixes that bug and corrects a cache-flushing problem with Duo 2300c machines and PowerBooks upgraded with PowerPC daughtercards. The update also fixes a problem formatting floppy disks for DOS on a PowerBook 5300.

In addition, Apple said Revision 2 improves the general reliability of PowerPC-upgraded PowerBooks and 7200, 7500, 7600, 8500 and 9500 Power Macs.

Users can download the revision free from ftp.info.apple.com, ftp.support.apple.com and http://www.info.apple.com.

Users can also order the update for $13 by calling (800) 293-6617, Ext. 1198.

Apple said it expects to have localized versions of the update available by the end of summer. The retail version of the Mac OS will incorporate the update later this year, the company said. □

Web server adds proxy services

NovaServer combines e-mail, BBS, news server

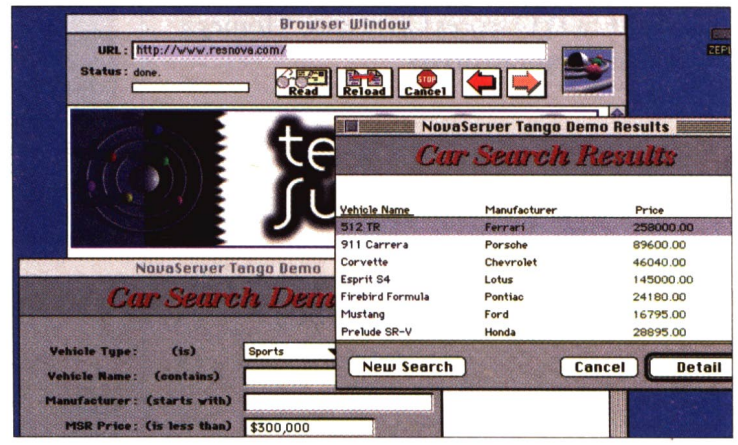
By James Staten

Another BBS has transformed itself into an Internet server, and this one offers proxy services.

NovaServer from ResNova Software Inc. combines e-mail, bulletin board, Web and Usenet news-server functions. Version 4.04 adds Internet server-proxy services that let BBS clients surf the Web without direct Internet access.

David Theoharides, principal at Mattanawcook Junior High School in Lincoln, Maine, uses NovaServer's proxy features to control the Internet sites his 450 students can visit. "It gives you the ability to screen the sites you don't want students to access," he said, and they "can't beat" its security.

ResNova said NovaServer accepts clients connecting via modem, LAN, Telnet or the Internet. A Serial Line Internet Protocol or Point-to-Point Protocol account is not required for modem connections.



NovaServer 4.04 lets administrators create documents in WindowScript, an extension to HTML that generates multiple-window documents such as this query and search result.

Its own client, NovaTerm, features a built-in Web browser that supports WindowScript, a proprietary set of HTML extensions that lets NovaServer administrators design pages with custom windows, scroll bars, buttons and graphics.

WindowScript can be used to build custom database-query forms or bulletin board interfaces; the pages will default to standard HTML or text-only for more-limited clients, the company said. ResNova said it has proposed WindowScript to the HTML-standards boards.

Other features of Version 4.04 include improved security through expiring passwords and support for the Tango Open Database Connectivity CGI (Common Gateway Interface) from EveryWare Development Corp. of Mississauga, Ontario.

ResNova said Open Transport enhancements and FTP-server functions are in development.

NovaServer runs on 680x0- and PowerPC-based Macs and starts at $119 for 10 modem-connected clients; however, the low-end package provides no Internet access. A starter kit that adds all Internet features and supports 50 clients is priced at $2,200.

ResNova Software Inc. of Huntington Beach, Calif., can be reached at (714) 379-9000; fax (714) 379-9014; info@resnova.com; http://www.resnova.com. □

Apple signs Norwegian Pippin licensee

Katz Media will sell to Europe

By James Staten

Apple has signed yet another overseas licensee for its Pippin Internet and CD-ROM platform.

Norwegian multimedia title developer and distributor Katz Media AS said it plans to ship devices based on the Pippin to selected European markets starting at the end of the third quarter.

Katz's Pippin will be priced between $600 and $700, including a modem, keyboard and game-style controller. Optional peripherals will include floppy and hard drives as well as a Zip mechanism from Iomega Corp. of Roy, Utah, the company said. Katz is also working on an infrared keyboard to replace the wired unit sometime in 1997.

Oslo, Norway-based Katz said it plans to target home users, but, like Apple and licensee Bandai Digital Entertainment Corp. of La Mirada, Calif., it will also court corporate and vertical-market customers.

Katz Vice President Thomas Virden said about 100 titles will be available for the European Pippin at launch. Katz currently markets 50 CD-ROM titles in Europe for the Mac and Microsoft Windows machines.

Apple said Katz has a nonexclusive worldwide license, which would allow it to go after other markets, such as Australia, where its titles are prevalent.

Katz is owned by Olympia Finans AS Group, a privately held holding company with businesses in publishing, graphics, distribution and financial services.

Users can learn more about Katz's Pippin plans by contacting the company at http://www.katz.no or post@katz.no. □

Iomega cashes in on Zip

Seeking to dampen rumors that exaggerated its successes, Iomega Corp. of Roy, Utah, this week said, contrary to published reports, that it has sold about 2 million Zip drives since the product's introduction in 1995.

The company also said it and its manufacturing partners currently have the capacity to build up to 5 million of the removable-media Zip drives in 1996.

In other news, Iomega recently added a new partner. Sentinel NV of Wellen, Belgium, will manufacture Zip media. Sentinel's cartridges will hit the streets in the third quarter. □

SOYO joins clone cadre; UMAX runs with PPCP

By David Morgenstern

Mac clones took the spotlight last week with a new sublicensing agreement from Motorola Inc. and the demonstration of a new Mac clone, a PowerPC Platform system from UMAX Computer Corp.

The Taipei, Taiwan-based SOYO Computer Inc. agreed to license the Mac OS from Motorola Computer Group, located in Tempe, Ariz. Motorola is exercising its broad license for the Mac OS that it received in February (see 02.26.96, Page 1).

Founded in 1985, SOYO is a multinational vendor of Intel-standard PC motherboards, display cards and BIOS logic.

The company said it has offices in the United States, Germany, the Netherlands and Korea. It had $300 million in revenues in 1995.

In other clone news, UMAX of Fremont, Calif., took the wraps off a prototype PowerPC Platform, or PPCP, system at the Computex '96 show in Taipei, Taiwan.

The company also reportedly showed several entry-level machines based on 140- and 200-MHz PowerPC 603e processors. The models are slated to ship in the fall. □

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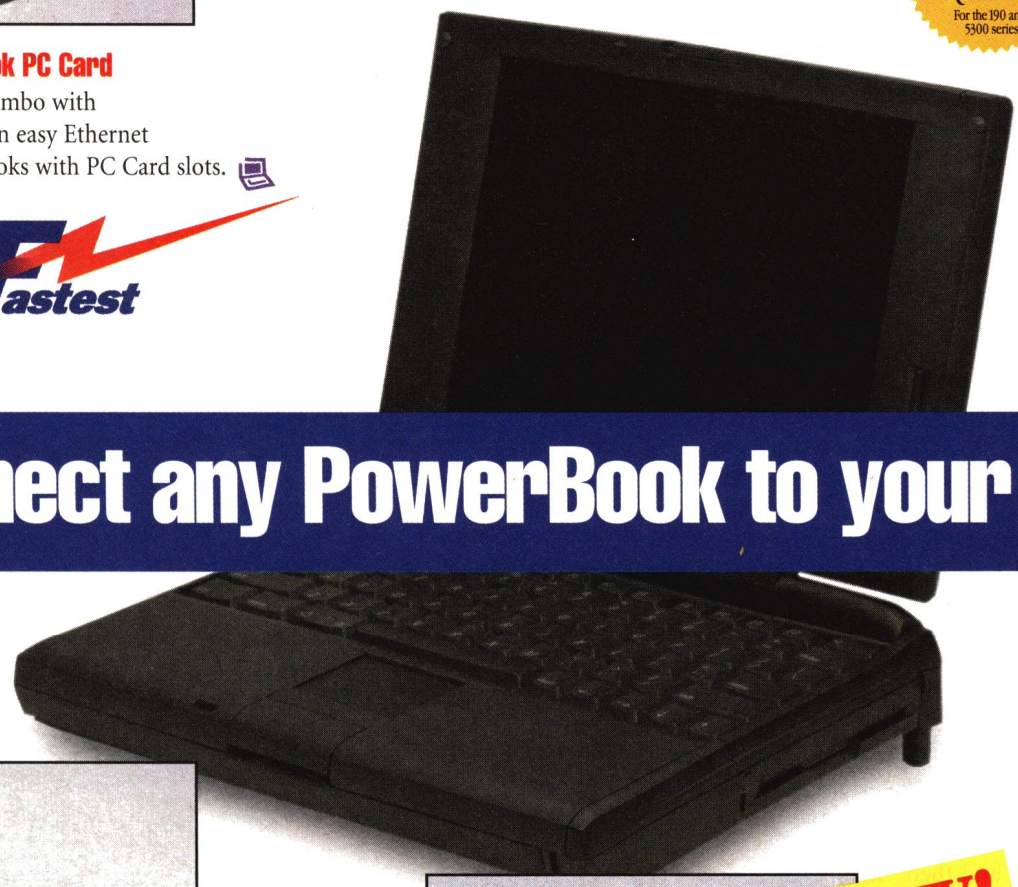

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Software drivers take a spin

By Rebecca Gulick and David Morgenstern

A duo of vendors recently teed off with new QuickDraw GX and PostScript drivers that pump up options for output and printers.

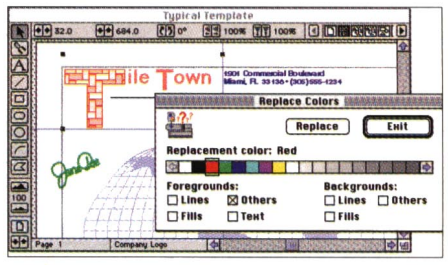
▶ **Computer:applications Inc.** recently added QuickDraw GX drivers to its $129.95 OnPage and MacJET driver packages.

OnPage GX lets users print to any PostScript printer with PostScript Printer Description (PPD) files used by the LaserWriter 8 driver. The company said the driver parses a PPD file and presents it in the standard GX dialog box. OnPage GX supports Apple's GX extensions and takes advantage of printer-specific features in PPD files, such as stapling, collation, paper trays and booklet printing.

The MacJET GX driver lets users output to HP PCL-compatible laser printers that are aimed at the Intel-standard PC market and less expensive than models using a PostScript processor. While MacJET GX defaults to HP PCL 3, the software provides check boxes for HP PCL 5 features, such as 600-dpi resolution. Both drivers let users create custom tables for font downloading and substitution, the company said.

▶ **MindGate Technologies Inc.** recently released a printing utility that offers many features of QuickDraw GX drivers without the memory overhead.

The company's $95 LaserMerge Electronic Paper 2.0 provides a printing layer between PostScript and QuickDraw printers as well as fax software drivers. The utility supports PostScript Level 2 caching that speeds printing by storing a downloaded image and then "stamping" it on subsequent pages or jobs, MindGate said. LaserMerge sends the form or image automatically, unlike other products that require a separate download operation.



MindGate's LaserMerge Electronic Paper 2.0 lets users create multilayered forms.

LaserMerge comes with a forms-designer application that lets users create multilayered printing templates that can shift, scale and color text and images. It supports multiple-page printing, pamphlets and watermarks. The software also offers 38 commands for text formatting, including bar-code generation and serial numbers.

In addition to predesigned templates, the software can capture a job before printing and let users add templates or output modifications. The company offers a $40 competitive upgrade from other printer utilities; site licenses are available.

Computer:applications Inc. of Raleigh, N.C., is at (919) 846-1411; fax (919) 846-1412; http://www.caidesign.com.

MindGate Technologies Inc. of Flintville, Tenn., is at (615) 937-6800 or (800) 648-6840; fax (615) 937-6801; fax-back (615) 937-4636; sales@mindgate.com; http://www.mindgate.com. □

New price cuts on upgrade card for PowerBook 500 systems

By Joanna Pearlstein

Newer Technology Inc. hopes to encourage PowerBook owners to become speed mavens by cutting prices this month on its PowerPC upgrade card for PowerBook 500 systems.

The NUpowr is based on a 117-MHz PowerPC 603e (see 05.06.96, Page 37). Available in 0-, 4- and 8-Mbyte RAM configurations, the upgrade now costs about $595, $745 and $899, respectively — down from $670, $875 and $1,070, with an average drop of $125.

In addition, Newer is offering NUpowr customers the PowerPort Mercury, a 19.2-Kbps fax modem from Global Village Communication Inc. of Sunnyvale, Calif., intended for PowerBook 500-series machines. The NUpowr and PowerPort combination is expected to cost $715, $865 and $1,019 for the 0-, 4- and 8-Mbyte versions of the NUpowr.

Regardless of whether a user chooses the PowerPort option, the NUpowr comes with a copy of Speed Doubler from Connectix Corp. of San Mateo, Calif.

Newer Technology Inc. of Wichita, Kan., can be reached at (316) 943-0222 or (800) 678-3726; fax (316) 943-0555; http://www.newertech.com. □

Bibliography tool goes on Web

Westing Software Inc. is now shipping a World Wide Web version of its Bookends Pro bibliography software.

The reference-management application allows users to keep track of references, notes and citations in the Bookends database. With the $179 Web version, users can now format their reference material in HTML and publish it on Web sites. The information stored in the database can then be queried through a Web browser.

Westing Software Inc. of Corte Madera, Calif., can be reached at (415) 945-3870 or (800) 325-1862; fax (415) 945-3877; westing3@aol.com; http://www.westinginc.com/westing. □

DISPLAY BEAT

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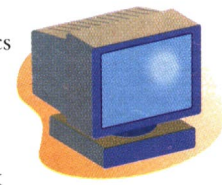

Mitsubishi Electronics America Inc. of Cypress, Calif., said it will release early next year a 40-inch monitor based on new plasma technology (see 03.04.96, Page 6).

Dubbed "next-generation" TVs, plasma monitors are made from thousands of glowing, gas-filled chambers, making them extremely thin and light compared to conventional displays.

Mitsubishi's monitor, which does not yet have a name, will weigh only 50 pounds, be about three inches deep — light and thin enough to be hung like a picture — and can be used as a TV. Its cost — between $8,000 and $10,000 — will limit sales to corporate customers until prices fall, Mitsubishi said. The company will be showing a 20-inch version at this year's trade shows.

Also new from Mitsubishi is a 15-inch color monitor intended for businesses that need many inexpensive screens. The Diamond Scan 15VX costs $410. Phone (714) 220-2500 or (800) 843-2515; fax (800) 937-2094; http://www.mela-itg.com.

Smile, you're on TV. At the other end of the size spectrum, Smile International Inc. of Costa Mesa, Calif., has launched a high-resolution color monitor that measures only 9 inches across. Aimed at the retail, science and medical markets, the CB0913DL delivers resolutions of up to 1,024 by 768 pixels, and it costs $465. Phone (714) 546-0336 or (800) 876-4532; fax (714) 546-0315.

Small is beautiful. And if you're looking for the world's smallest VGA adapter, Interex Computer Products of Wichita, Kan., offers one that measures only 18mm in length. When connected to the display chain, the adapter saves "valuable space behind the CPU," according to the company. The adapters start at $4.99. Phone (316) 636-5544; fax (316) 636-4616.

— By Leander Kahney

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Mapping software has updates in sight

By Clifford Colby

A handful of companies are unfolding new versions of mapping software this spring.

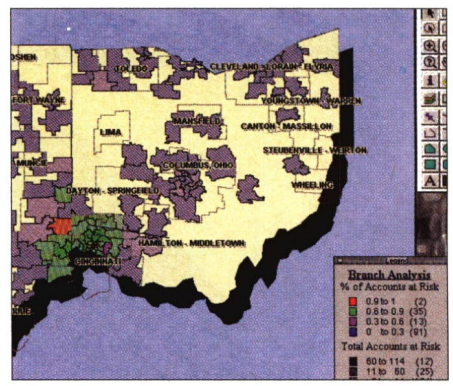
▶ **MapInfo Corp.** of Troy, N.Y., is now shipping Version 4.0 of MapInfo. The update includes Map Sheets for linking maps and comes with new labeling and animation features as well as international date- and number-formatting capabilities.

The company said Version 4.0 includes 300 Mbytes of mapping data, including U.S. ZIP codes; county and state boundaries; North American, European and Asian Pacific administrative boundaries; and international road maps.

Through June 25, users can upgrade to Version 4.0 for $99. The update includes MapBasic, a development environment for creating mapping applications. After June 25, upgrade pricing will be $149 each for MapInfo and MapBasic. MapInfo regularly costs $695, and MapBasic is $395.

▶ **ThinkSpace Inc.** of London, Ontario, in May shipped its first version of MapFactory, which the company said replaces its Map II contour-mapping software. The suite of mapping, analytical and modeling tools allows users to create and view maps as well as mark and measure areas and distances. Pricing for MapFactory starts at $895.97 for a single-user version, with discounts available for multiple copies. The company said it also offers educational pricing.

▶ **Avenza Software Inc.** of Burlington, Ontario, is now offering MAPublisher 1.5, its Adobe Illustrator plug-in that lets users create maps by importing GIS (Geographic Information Systems) data into Illustrator. The company said the update includes improved importing features and point, line and polygon handling capabilities. MAPublisher costs $395; current users can upgrade free.



The new version of MapInfo comes with information on state and county boundaries that can be included in maps.

▶ **Cartesia Software** of Lambertville, N.J., recently released MapArt: Globes. The company said the mapping software works with Adobe Photoshop to overlay TIFF global perspectives. The $199 application lets users edit perspectives, such as terrain features, and export images into 3-D imaging applications. Users can also export images into page-layout applications. □

Toast and RAM on CD-R menu

By John Poultney

Astarte GmbH shipped its Toast CD-ROM Pro 3.0 mastering software in May. The updated version includes a new caching scheme and adds full drag-and-drop support.

The new edition, priced at $359, uses system RAM as an additional data buffer. According to the company, this approach minimizes data-flow reliability problems, particularly in shared media, enabling network volumes to act as sources, the company said.

The application creates Macintosh and ISO 9660 discs on the fly from files or folders, and it optimizes and defragments volumes during recording. Because CD-ROM read operations can take 20 times longer than with hard drives, Toast arranges files to minimize search times, making Toast-authored CDs up to three times faster than nonoptimized volumes, the company said.

In addition to gaining full drag-and-drop support, Toast is now fully scriptable via AppleScript.

Lex De Azevedo, multimedia coordinator at Strata Inc. of St. George, Utah, uses Toast 3.0 for CD-Recordable production. "Some drives don't handle buffer underrun well," De Azevedo said. "Using system RAM as a buffer is a cool solution for that."

In related news, Astarte shipped in May its $459 M. Pack QuickTime-to-MPEG conversion software (see 01.15.96, Page 4). The software can set parameters for PAL (European), NTSC and film formats automatically. It also includes a multiplexer capability that lets users synchronize sequences that have been encoded separately.

Astarte GmbH of St. Paul, Minn., can be reached at (612) 483-5338; fax (612) 438-5448; http://www.astarte.de. □

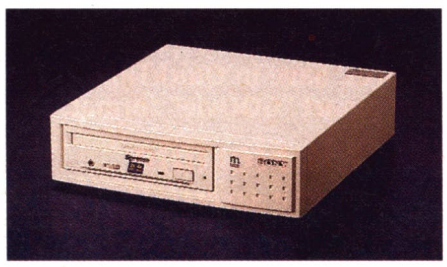
Sony prepping new CD-R drives

By David Morgenstern

Sony Electronics Inc. aims to improve CD-Recordable usability with its planned release of a new drive and intelligent driver technology this summer.

Slated to ship in August, the Mac version of the external Spressa 9411 drive will cost $1,059.99; the internal version will cost $899.99. A model for Microsoft Windows platforms will ship by July, Sony said.

The company said the Fast SCSI-2 recorder will write discs at double speed and read at quadruple speed. It will have an average access time of 230 milliseconds.



Sony's Spressa 9411 CD-Recordable drive will offer 2x recording and 4x reading speeds.

The drives will support packet writing and Sony's new CD-R file system (CDRFS) format, which will let users interact with CD-R discs as with other removable media. For example, users can mount discs on the desktop and write files from an application or via drag-and-drop.

Sony said its system will make more efficient use of disc resources than competing drivers and utilities. When users save succeeding versions of a document, the system will save only the changed data instead of the entire revised file. Users will also be able to view either the latest version or all iterations of a document.

In addition, the discs will provide an ISO 9660 header that can automatically load the correct cross-platform driver for reading the media, Sony said. Drivers for OS/2 and Unix platforms are slated for the third quarter.

The new Spressa drives will also come bundled with Corel Corp.'s CD Creator authoring software.

Sony Electronics Inc. of San Jose, Calif., is at (408) 432-1600 or (800) 352-7669; http://www.sel.sony.com/SEL/ccpg. □

MouseWorks unites Kensington devices

Kensington Microware Ltd. consolidated the software for its line of input devices with the introduction this month of MouseWorks.

MouseWorks replaces the different versions of control software used with Kensington's mice and trackballs. The new software simplifies the graphical user interface and automatically changes command sets as the user switches between applications, the company said.

Starting this month, MouseWorks will ship with the Kensington Mouse and Kensington Thinking Mouse as well as the Turbo Mouse 5.0 and Expert Mouse trackballs.

Kensington Microware Ltd. of San Mateo, Calif., can be reached at (415) 572-2700 or (800) 535-4242; fax (415) 572-9675; info@kensington.com. □

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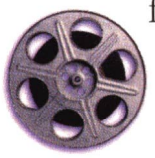

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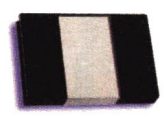

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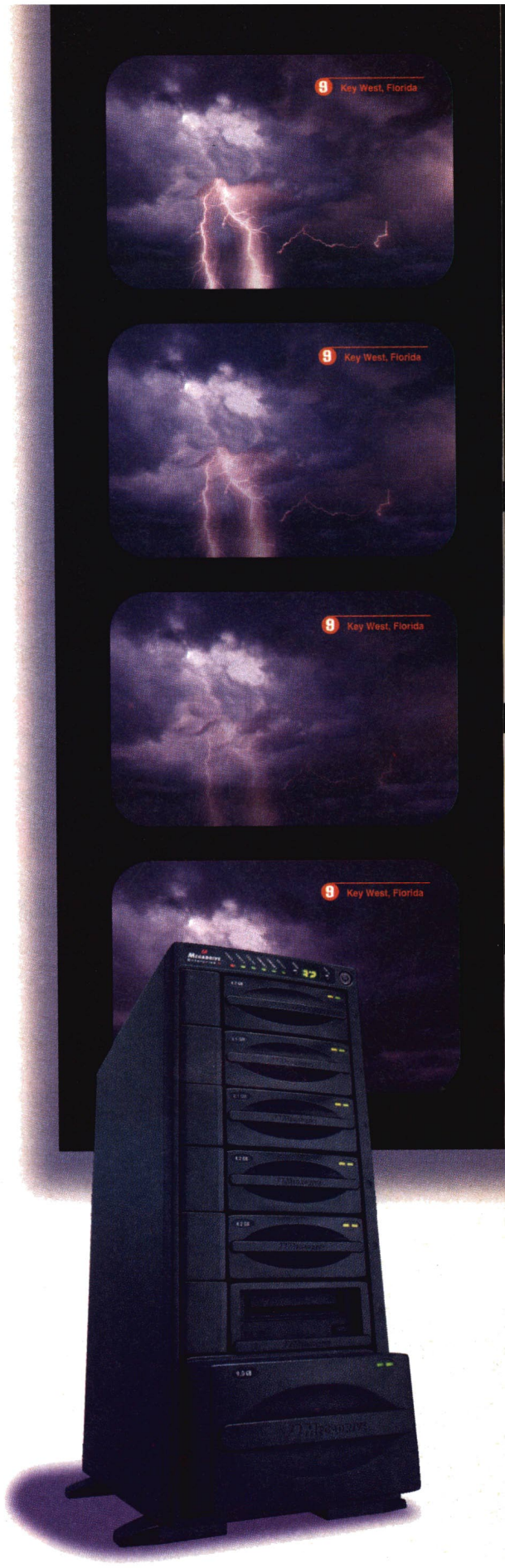

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Intuit posts loss in Q3

By Marty Cortinas

The third quarter of 1996 was most taxing for Intuit Inc. of Mountain View, Calif., as the company posted a net loss of $300,000.

That result, however, was an improvement over 1995's third quarter, when Intuit lost $3.8 million.

The company said its recent loss included $7 million in acquisition-related charges from past deals for Chipsoft Inc. in 1993 and Parsons Technology Inc. in 1994. Without the charges, Intuit would have posted a $6.7 million profit in the quarter.

Revenue in the third quarter, ended April 30, was $136.5 million, up 30 percent from $104.8 million in the same period a year ago.

Intuit Chairman Scott D. Cook said the results were in line with the company's expectations announced in February. Cook said sales for the 1995 tax season appear successful, but the final tally won't be known until the end of the fourth quarter, when the annual product cycle of the company's tax software is complete. □

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STORAGE BEAT

Short-run CDs. Trimming CD-ROM production times, Ultera Systems Inc. of Laguna Hills, Calif., last week released its CD-R Multi-Master, a hardware-controlled duplicator that can write to five CD-Recordable mechanisms simultaneously. Ultera said users can also address each drive separately, and the SCSI unit is compatible with most CD-R authoring software and recorders. A five-bay system without CD-R drives costs $9,090. Phone (714) 367-8800; fax (714) 367-0758; info@ultera.com.

Optima goes for this, DAT. Optima Technology Corp. of Irvine, Calif., said several Sony DAT drives now support Optima's DeskTape software, which lets users mount tape drives in the Finder.

Users can add drives with Sony SDT-5000 and SDT-5200 mechanisms with firmware Version 3.30 or later; the version number can be read with most SCSI utilities. Firmware updates are available free from Sony's tape-streaming products division in San Jose, Calif., via fax at (408) 955-5533. Optima said its DeskTape software requires a Mac with SCSI Manager 4.3 to use the Sony DAT drives. Phone (714) 476-0515; fax (714) 476-0613; marketing@optimatech.com; http://www.optimatech.com/optima.

Digital mediation. Maxell Corp. of America in Fair Lawn, N.J., recently unveiled new 540- and 640-Mbyte 3.5-inch magneto-optical cartridges. The $41.99 media is slated for currently unannounced high-capacity MO drives expected to ship later this year from several vendors. Mac users in Japan have a head start with the new drives: Yano Electric Co. Ltd. of Kobe this spring took the wraps off a full lineup of 640-Mbyte MO drives, including a $1,185 desktop and a $1,463 sporty portable model.

— By David Morgenstern

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Apple signs deals abroad, at home

By MacWEEK staff

While CEO Gilbert Amelio was working on the company's reorganization, Apple announced three deals affecting distribution, dealer financing and enterprise connectivity.

▶ **Macs in China.** Apple signed a distribution agreement with Hong Kong-based Founder Ltd. to provide Apple products to the Chinese publishing market. Founder, a unit of Beijing University's Founder Group Corp., is the dominant player in Chinese electronic publishing software, with an estimated 70 percent share of the market. It will provide publishing solutions based on Apple technologies and products and will develop Mac versions of its typesetting and newspaper-management applications.

▶ **Dealer financial assistance.** Apple added Finova Capital Corp. of Phoenix to its list of preferred financial partners that are willing to help Apple resellers raise capital to expand their businesses. Finova joins NationsBank of Charlotte, N.C.; Deutsche Bank AG of Frankfurt, Germany; and Transamerica Corp. of San Francisco on the list. Apple said this latest relationship does not provide easier approval, lower rates or co-financing assistance but was forged to help dealers get a foot in the door.

▶ **Enterprise connectivity.** Apple is providing development and marketing expertise to help Open Horizon Inc. of Belmont, Calif., bring its middleware for enterprise connectivity to Mac audiences.

Connection is a set of object-broker services priced from $199 each. The brokers will let Macs connect to IBM, Informix, Oracle and Sybase remote databases; security services such as Kerberos; directory services, including Distributed Computing Environment and X.500; and application services such as Encina, Forte, Tuxedo and Top End.

Connection for Mac is expected to ship in the fall and will be marketed jointly by Apple and Open Horizon as part of a larger software set for enterprise customers.

Chip Overstreet, vice president of marketing for Open Horizon, said this relationship with Apple is not simply an effort to port Connection, but a long-term deal that could lead to further co-development. □

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Arsenal aiming at sales forces

By Clifford Colby

Offering users new business armaments, Borealis Corp. this summer will release Arsenal, its suite of sales-automation software.

Slated to ship in September, the client-server Arsenal is targeted at the traveling sales forces of Fortune 2000 companies. It will feature tools for custom account and territory management as well as sales tracking and analysis.

The software will include cross-platform remote clients, which will allow users to take Arsenal on the road. Borealis said the mobile clients will synchronize data automatically when they reconnect to a server.

Arsenal will also come with LAN clients for local users connecting directly to the server. Borealis said it will offer clients for 680x0 machines and Power Macs as well as Microsoft Windows 3.1, 95 and NT machines.

Available on Windows NT and Unix platforms, the Arsenal server will manage data synchronization and negotiate LAN and remote connections with corporate databases. It will support Oracle, Sybase, Informix and Microsoft SQL databases.

Borealis said Arsenal will cost $1,500 to $2,000 per user, depending on the number of users; it will scale up to 5,000 users.

Borealis Corp. of Incline Village, Nev., is at (702) 832-0300 or (888) 427-7362; fax (702) 832-7753; info@brls.com. □

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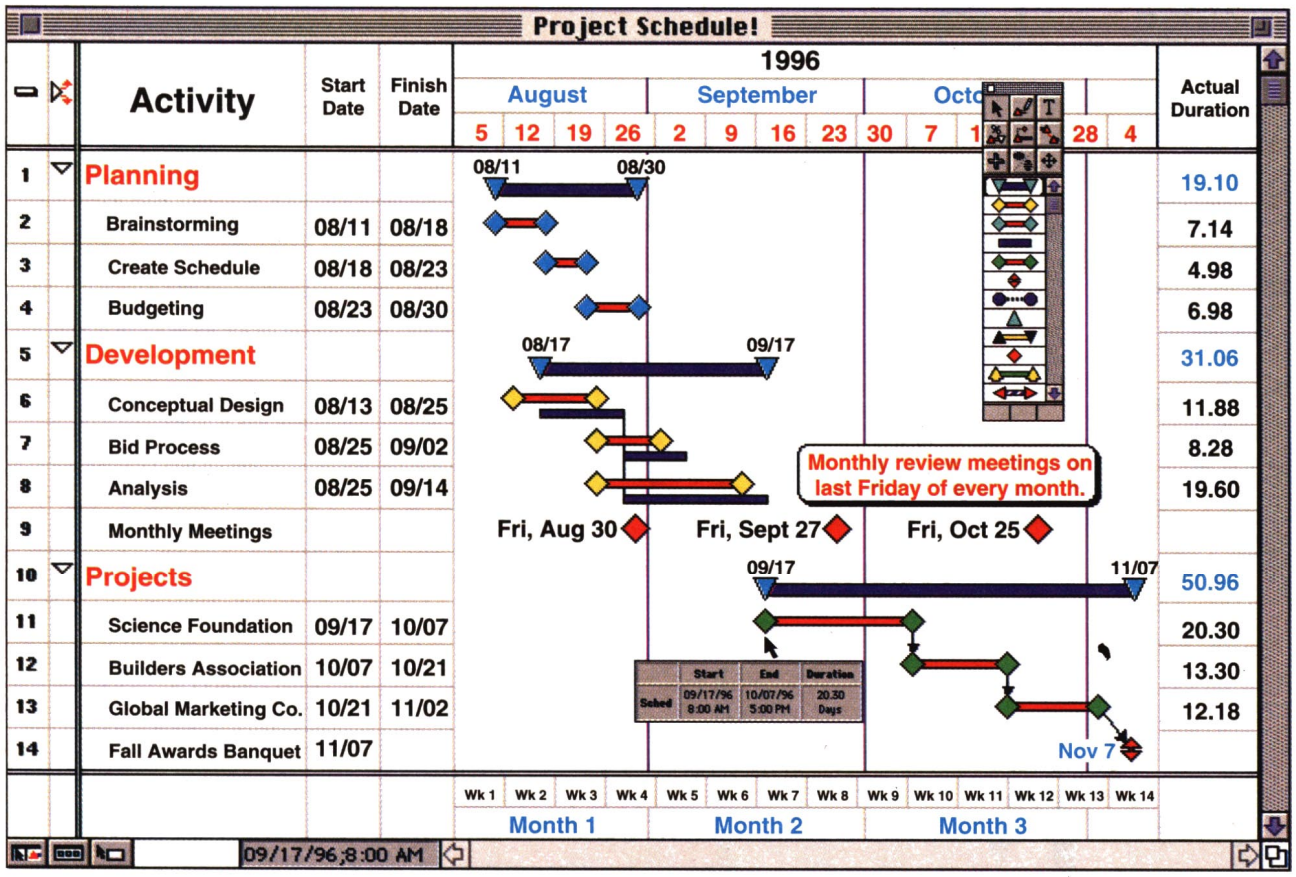
Project Schedule!
1996
August
September
Activity
Start Date
Finish Date
Actual Duration
1 Planning 08/11 08/30 19.10
2 Brainstorming 08/11 08/18 7.14
3 Create Schedule 08/18 08/23 4.98
4 Budgeting 08/23 08/30 6.98
5 Development 08/17 09/17 31.06
6 Conceptual Design 08/13 08/25 11.88
7 Bid Process 08/25 09/02 8.28
8 Analysis 08/25 09/14 19.60
9 Monthly Meetings
10 Projects 09/17 11/07 50.96
11 Science Foundation 09/17 10/07 20.30
12 Builders Association 10/07 10/21 13.30
13 Global Marketing Co. 10/21 11/02 12.18
14 Fall Awards Banquet 11/07
Monthly review meetings on last Friday of every month.
Fri, Aug 30
Fri, Sept 27
Fri, Oct 25
Nov 7
Wk 1 Wk 2 Wk 3 Wk 4 Wk 5 Wk 6 Wk 7 Wk 8 Wk 9 Wk 10 Wk 11 Wk 12 Wk 13 Wk 14
Month 1
Month 2
Month 3
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- Page Breaks • Hide Graph
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- Bar Tracking Window • Templates
- Interactive Page Preview Layer
- Cursor Tracking Window
- Quick Corner • Autofit Schedule
- Action Columns • Floating Toolbox
- Auto resize row height

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MacWEEK

3 Power

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MacUser

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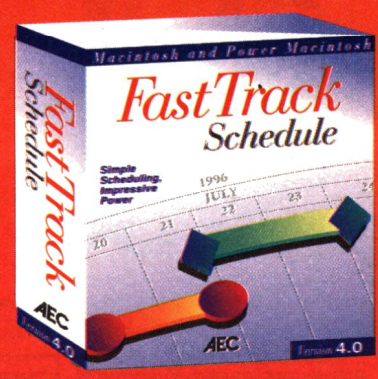

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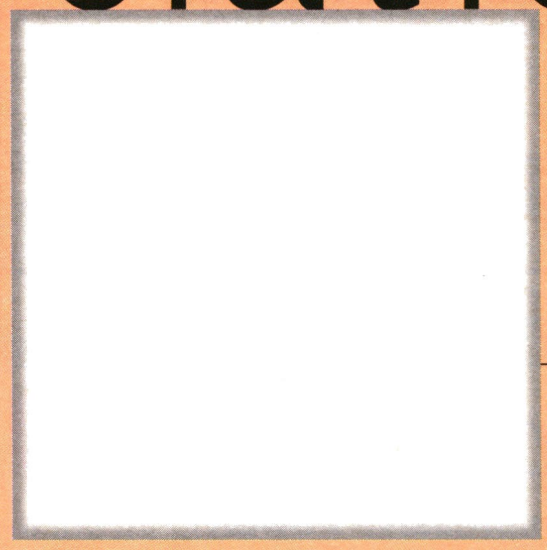

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You begin

With a hunch.

You begin

At zero.

1

You open a worksheet.
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You use AutoFill
And the rest of the months
Are filled in for you.
Automatically.

2

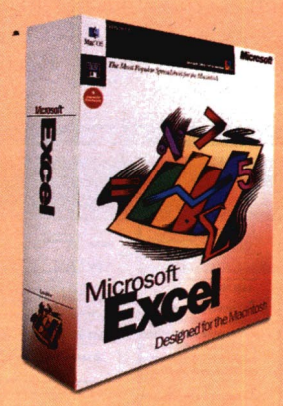
You enter numbers.
You click AutoFilter
And the data you want to see
Rises to the top
So you can focus on
What you need to focus on.

3

You want to slice
And dice your numbers.
You build a PivotTable®
To see them
From any perspective
You want.

4

You see
Patterns form.
You come
To understand.
You get it.



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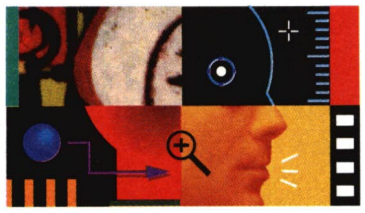


GA

SOUND OF MUSIC

InVision's CyberSound VS MIDI synthesizer for the Mac crashes the hardware party.
See Reviews, Page 34.

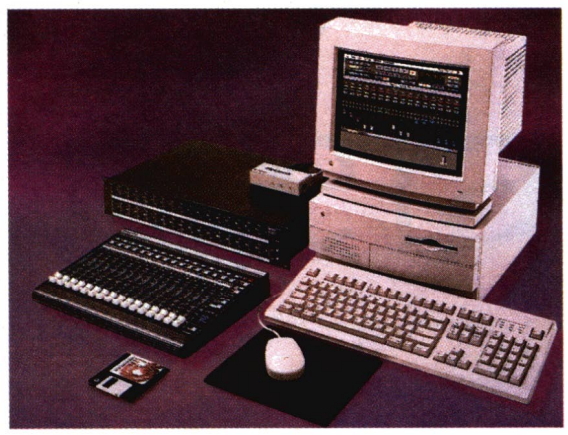
Digital audio tools add automation to the mix

By Kelly Ryer

Automation has left its stamp on countless manufacturing industries, but what does it mean for digital audio editing?

Automation of audio mixing, which lets users save mixer settings and other configurations, plays a key role in new products from Mackie Designs Inc. and Digidesign, a division of Avid Technology Inc.

Mackie, a newcomer to the Mac market, in May released an update to its $2,797 UltraMix Universal Automation System, which performs MIDI-controlled mixing of analog-signal audio.



Mackie's UltraMix Universal Automation System consists of a gain cell unit, an automation control interface and software that runs on most Macs.

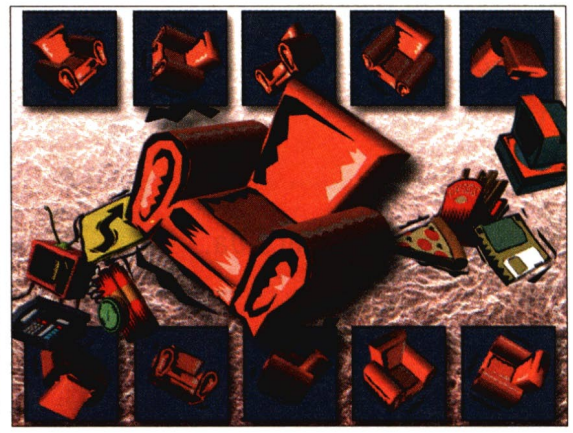
Version 1.11 of the UltraMix Pro software includes a new clipboard edit filter, program-change editing capabilities and speed improvements, Mackie said. Key encryption has been removed, and the upgrade supports Version 2.1 of the industry-standard OMS (Open Music System). Upgrades are free to current owners.

First introduced in November 1995, UltraMix comprises Ultra-34 gain-control hardware, the company's UltraPilot hardware controller and cross-platform UltraMix Pro software. Users must provide a Mac and a multiport MIDI controller, the company said.

With the sliding faders on the UltraPilot, users can mix a song while the system stores each setting to disk. These settings can be recalled each time the composition is played back, eliminating many repetitious tasks.

The UltraMix Pro's AutoMute feature eliminates unwanted noise by muting each channel when a signal is not present,

See Audio, Page 18



Rocking chairs: Plastic Thought's ActiveArt CD-ROM will have more than 300 3-D objects. Many of them, including this chair, will also appear in the Web Edition.

New software spins art onto Web pages

Trio of vendors ships media sets

By Rebecca Gulick and Kelly Ryer

Three vendors are making their marks on the Web with new products that promise to give HTML pages an artsy flair.

Plastic Thought Inc. in May introduced the ActiveArt Web Edition of 3-D clip art for designers who want objects on their sites but don't want the hassle of creating them. The $29 CD-ROM collection includes the WebVR-Maker utility, which allows users to create a stream of pictures from one 3-D model.

At the heart of the CD-ROM are 200 3-D models, each of which takes up less than 120 Kbytes. The models emulate items such as stop signs, arrows and magnifying glasses. Each comes in three formats: 3DMF (3-D metafile format), Virtual Reality Markup Language and animated GIF.

Plastic Thought plans to ship in November its non-Web ActiveArt CD-ROM. Using the $79 CD's browser, users will be able to render any of 300 models from any angle and save the image in EPS, PICT or TIFF format.

HTML designers looking for more control over the function of

See Web, Page 18

Acrobat 3.0 sets course for Navigator, Internet Explorer

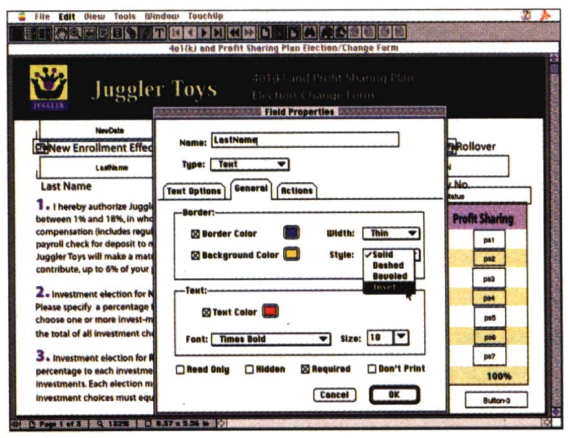
By Rebecca Gulick

Adobe Systems Inc. last week announced the final details of Acrobat 3.0, the upcoming Web-savvy version of its portable-document software.

Set to ship in August for $295, Version 3.0 will interact with Netscape Navigator and Microsoft Corp.'s Internet Explorer, so users will be able to view Acrobat's Portable Document Format (PDF) files within those Web browsers.

According to the company, when PDF files are opened over the Web, Acrobat 3.0 will download each page independently so users won't be kept waiting. Web pages can contain entire PDF files via HTML's Embed tag, with scaling options for width and height. When a user clicks on the first page

See Acrobat, Page 18



Acrobat 3.0 will be able to update variable data in interactive forms without resending an entire form. Users will be able to edit, fill in and print text fields.

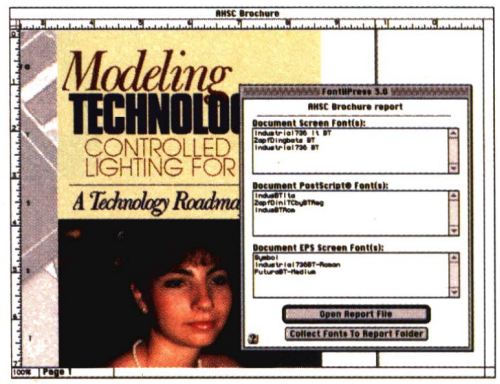
FontXpress saves faces for XPress users

By Rebecca Gulick

QuarkXPress users weary of rounding up the fonts that will accompany their files to service bureaus can now turn to an enhanced software add-on from Morrison SoftDesign.

Version 3.0 of the $69.99 FontXpress, formerly dubbed ReportFont, can automatically collect the fonts used in an XPress file in addition to reporting on them.

FontXpress reads the Document Report generated by XPress' Collect for Output function. After searching the user's font folders and suitcases, it collects relevant PostScript, TrueType and bit-mapped fonts into a report folder. FontXpress reports can also include information about graphics, page size and count, and required QuarkXTensions.



FontXpress 3.0 automatically collects fonts used in an XPress file for speedy delivery to service bureaus.

Chuck Cole, advertising communication coordinator at the Charlotte (N.C.) Observer, said he receives electronic ads from a variety of sources. "Since [FontXpress] finds fonts through the report list, it finds EPS fonts," Cole said. "Those are the ones that are usually missed."

Morrison SoftDesign of Charlotte, N.C., can be reached at (704) 597-3789; fax (704) 599-5901; jsmorr@charlotte.infi.net.

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Adobe PostScript

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8 pages per minute (letter)
Print up to legal size

XANTÉ
Innovations In Output

Mackie's virtual mixer features solid faders that show previously saved levels and "glass" faders that display new adjustments.

Audio

From Page 16

according to the company.

To fine-tune mixes, users can compare their changes graphically with a previously saved version in the software's virtual mixer.

According to Mackie, the UltraMix system will run on any Mac equipped with a 25-MHz 68030 processor or better, including PowerBooks and Mac LC models.

The company said UltraMix's support for the OMS standard simplifies setup. An autodetect sequence in the OMS software recognizes devices on the MIDI chain and connects them to the UltraMix system.

Automation also plays a role in the range of enhancements to Digidesign's Pro Tools digital audio workstation, which features playback, editing, mixing and recording capabilities.

Version 4.0 of the $7,995 system's software component, slated to ship in the third quarter, will be Power Mac-native.

It will add several automation features to the system's mixing and processing capabilities. The new version will be able to automate TDM (Time Division Multiplexing) plug-ins and muting; it will also feature separate automation modes for minor and major adjustments. Faders will now be grouped or nested, Digidesign said.

Pro Tools' editing capabilities will be beefed up with the addition of multiple playlists per track as well as a new interface for cross fades.

In addition, the new version will feature faster redraws, more-sophisticated searching, batch processing of regions and noise-shaped dithering of fades, Digidesign said.

Besides the software, the Pro Tools system includes an I/O card as well as the DSP Farm, a card that holds four digital signal processor (DSP) chips. A PCI version of the boards, called Pro Tools PCI, shipped in May; a NuBus version is still available.

In April, Digidesign and Mackie agreed to cooperate on designing a low-cost hardware control surface for Pro Tools and other related products.

Mackie Designs Inc. of Woodinville, Wash., can be reached at (206) 487-4333 or (800) 898-3211; fax (206) 487-4337.

Digidesign, a division of Avid Technology Inc., of Palo Alto, Calif., can be reached at (415) 842-7900 or (800) 333-2137 fax (415) 596-4406; http://www.digidesign.com. □

Web

From Page 16

their Web art can check out Creating Media's Plug-in Playlets 1.2, a collection of five Java-based tools that lets users add interactive and multimedia elements to pages.

Shipping this week, Playlets includes two sets of interactive controls: Hot Button Panel, a framework for a row of buttons, and Temporal Image Map, which plays buttons in slide-show fashion. The designer decides what images to place in the buttons and what actions they trigger, such as playing an animation. New to Version 1.2: Buttons can contain image maps that link to a set of URLs (uniform resource locators).

While users view a Web page, Playlets' Streaming Animation applet lets them download content from the next page in the background. Prices range from $150 for a single applet to $250 for all five.

For those looking for faster Web-art gratification, MediaMagic Solutions Inc. this week will release Instant Web Art, a $39.95 CD-ROM library of buttons, icons, bars, backgrounds and sounds. Six sample templates show how Instant Web Art is used and has basic instructions for coding in HTML.

Plastic Thought Inc. of Edmonton, Alberta, is at (403) 429-5051 or (800) 635-5715; fax (403) 426-0632; john@plasticthought.com; http://www.3d-active.com.

Creating Media of New York is at (212) 244-0862; fax (212) 244-0863; info@creatingmedia.com; http://www.creatingmedia.com.

MediaMagic Solutions Inc. of Cupertino, Calif., is at (408) 777-7676 or (800) 729-6244; fax (408) 777-7963; tom@magicstuff.com. □

Adobe unveils HTML converter

By Matthew Rothenberg

Further capitalizing on its incursion onto the Internet, Adobe Systems Inc. last week took the wraps off HoTaMaLe, a free Adobe FrameMaker-to-HTML conversion utility.

While FrameMaker 5 already offers some HTML-conversion capabilities, Adobe said the new plug-in supports tables and better mapping of fonts and size, among other features. Adobe said it will continue to enhance FrameMaker's Web connections with monthly updates to the new plug-in.

The company said it will make a public beta of the FrameMaker plug-in available next week to Microsoft Windows 95 and NT users. Macintosh and Power Macintosh versions of HoTaMaLe will be available in August, and versions for a variety of Unix operating systems will ship between July and September. Adobe said it rolled out the Windows versions first to coincide with last week's Windows World '96 show in Chicago.

HoTaMaLe will let users of the heavy-duty page-layout application convert pages to HTML simply by saving. According to Adobe, the utility will automatically analyze and map paragraph and character styles to HTML tags. The software will store information about mapping of paragraph and character styles in tables on the reference page of a FrameMaker document. Users will be able to alter the styles by editing these pages, Adobe said. Reference-page tables will also include information on macros as well as cross-reference and graphics formats.

In addition, HoTaMaLe will let users split a FrameMaker 5 document into an unlimited number of HTML files by specifying paragraph breaks where the document should be divided. The software will generate a table of contents for the newly divided documents, Adobe said.

Adobe Systems Inc. of Mountain View, Calif., can be reached at (415) 961-4400 or (800) 833-6687; fax (415) 961-3769; http://www.adobe.com. □

Acrobat

From Page 16

of a PDF document, the portable file will open within the browser, and the Acrobat tool bar will show.

Users will have the option of optimizing PDF files for online use. When they click a check box in the Save As window, Acrobat 3.0 will combine duplicate background objects and reorder the file for page-on-demand access over the Internet. The program will be able to optimize entire folders of PDF files in a batch.

Acrobat makes Web publishing easier for business users, said Rob Babcock, Adobe senior product marketing manager. "It lets them leverage their existing creation applications that they already know how to use. You don't have to turn everyone into an HTML guru Webmaster," he said.

Cross-document links will remain intact when PDF files are published on the Web. As before, users will be able to embed hyperlinked URLs (uniform resource locators) in Acrobat pages.

The software will substitute fonts as necessary, using Adobe's multiple-master font format. Version 3.0, which was developed under the code name Amber, includes a new compressed Type 1 format. Babcock said the format will be part of OpenType, a new font standard being developed by Adobe; Apple; Microsoft of Redmond, Wash.; and Netscape Communications Corp. of Mountain View, Calif.

In addition, users will be able to create and fill in interactive forms using the PDF format. Multiline text fields, check boxes and customizable buttons will be added. Acrobat will be able to update a form with new data without resending the entire form.

Dynamic controls will enable PDF hot spots. When a user's cursor enters these areas, it will trigger an action, such as playing a sound or jumping to another area in the document.

Acrobat 3.0 will speed online viewing by drawing the text first and downloading images in the background. The program will also gain anti-aliasing for type and monochrome images and a continuous-scrolling option.

The $295 Version 3.0 package will include Acrobat Exchange, Distiller, Reader, PDF Writer, Catalog, Search and Capture. This bundle of tools is currently sold as Acrobat Pro for $595. In August, Adobe will drop the basic $195 Acrobat package, which does not include Distiller.

Acrobat PDF Writer, which converts files into Acrobat's application-independent format, will perform ZIP and LZW compression for text and line art in Version 3.0; the utility will also select subsets of Type 1 and True-Type fonts, including only the characters used in that particular document. Version 3.0 will also add device-independent color information to the PDF file, based on Apple's ColorSync 2.0.

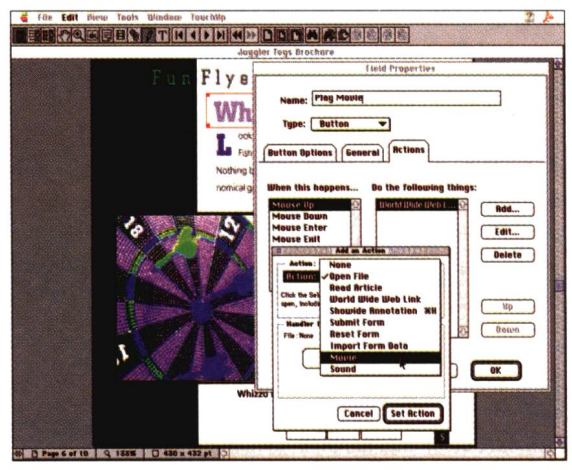
Acrobat Distiller 3.0, the application for converting PostScript files to PDF, will gain a General Options setting for specifying default page sizes. Image downsampling and compression in Distiller will be enhanced.

Acrobat Capture, an OCR plug-in for Exchange, will now convert scanned color, gray-scale, and black-and-white TIFF images into searchable PDF documents. Capture will recognize characters in seven languages, fonts and page structure, Adobe said.

Acrobat Catalog will not change from the current version.

A limited beta version of Acrobat 3.0 is available now from Adobe's Web site at http://www.adobe.com/acrobat/3beta/.

Adobe Systems Inc. of Mountain View, Calif., can be reached at (415) 961-4400 or (800) 833-6687; fax (415) 961-3769; http://www.adobe.com. □



Acrobat 3.0's dynamic controls will include buttons and live areas that play QuickTime movies, navigate through documents and execute menu items. It will also support AIFF sounds.

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Utility turns tables

TableWorks speeds creation of Web grids

By James Staten

Web page designers accustomed to the WYSIWYG conveniences of Adobe Systems Inc.'s PageMill can now create HTML tables just as easily, thanks to TableWorks, a new program from SoftTools.

TableWorks is a $39.95 authoring tool that constructs HTML tables in a WYSIWYG environment. Users can create tables of any size containing images and text. Tables can include noncontiguous cells, cells of varying sizes and widths, tables within a table, and split cells. In addition, borders, alignment, spacing, and font sizes and colors can be set for all tables and cells.

The program supports background colors and images for the page, but it does not currently work with Microsoft Corp.'s HTML tags for cell or border coloring.

Users can edit tables through drag-and-drop operations or a series of dialog boxes. Images saved in GIF or JPEG format are supported, although TableWorks does not perform image conversion.

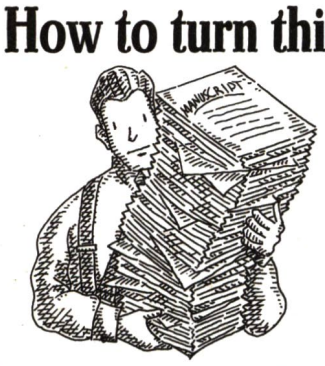
Setting the table: SoftTools' TableWorks puts a friendlier interface on HTML table creation, allowing users to create tables of any size and integrate graphics in GIF or JPEG format.

Hyperlinks can be tied to any cell in an HTML table, and alternative text can be stored for every image. (Alternative text is used to describe an image to a user who is viewing the page with a text-only Web browser.)

SoftTools said users can export elements created in TableWorks by copying the HTML code produced by the software to the Mac Clipboard.

SoftTools of Saint-Jean-sur-Richelieu, Quebec, is at (514) 346-3401; fax (514) 346-3587; comments@tableworks.com; http://www.tableworks.com. □

How to turn this...



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VIRGINIA SYSTEMS

XMeDIA takes AMT for a spin

By Kelly Ryer

The Carl Group Inc. recently shipped XMeDIA, an alternative multimedia engine for Apple Media Tool. The $299 plug-in expands the core capabilities of Apple's low-end authoring system.

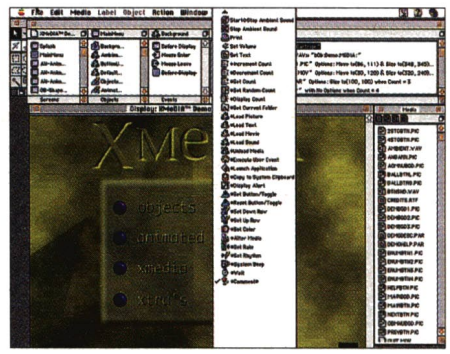
Apple Media Tool 2.0, which shipped in January, features an open architecture. XMeDIA plugs into Apple Media Tool and adds more than 10 new media objects, 13 events and 28 commands.

Via XMeDIA's engine, users can launch external applications such as a Macromedia Director player or a Web browser. Its media objects are dynamically reloadable and reusable and can work with pictures, text, movies and sound. XMeDIA's animated objects also include standard button and check-box behaviors.

Other features include point-to-point and linear animation, rendered geometric shapes, conditional events, and pasting text to the Mac Clipboard.

"One of Apple Media Tool's structural problems is that you can only plug in one engine at a time. XMeDIA's the one to use," said Mark Rudholm, beta tester and a software engineer at Commotion New Media Inc. of Santa Monica, Calif. "It adds a lot of functionality that we need," he said. "It's reduced the amount of custom code we're having to write for titles."

The Carl Group Inc. of Cupertino, Calif., can be reached at (408) 255-9171; fax (408) 255-9170; xmedia@carlgrp.com; http://www.carlgrp.com. □



XMeDIA adds objects, events and commands to Version 2.0 of Apple Media Tool.

Howtek drum costs less

Howtek Inc. lowered the price of its Scanmaster 7500 large-format drum scanner to $52,900 last month after removing its scanning software from the package.

Previously selling for $55,400, the 7500 has two drum sizes: 11.5 by 18.5 inches and 24 by 18.5 inches. It uses a tungsten-halogen light source and has an optical density of 3.8.

Howtek also released new versions of its drum-scanning packages: Trident PE 1.1, Trident SE 1.1 and Aurora 3.0.

Howtek Inc. of Hudson, N.H., is at (603) 882-5200; fax (603) 880-3843. □

FONT BEAT

Artistic type. P22 Inc. of Buffalo, N.Y., last week released a new font based on the handwriting of Paul Cezanne. Cezanne the typeface, commissioned by the Philadelphia Museum, is $21.95, as are two other new fonts, Il Futurismo and Childs Play. Phone (716) 885-4482 or (800) 722-5080; fax (716) 885-4482; p22@aol.com.

Font giveaways. International Typeface Corp. of New York released a new calligraphic family of fonts called ITC Kallos. And until Aug. 1 the company will give away one font with the purchase of any three. International Typeface's Fontek collection of TrueType and Type 1 typefaces normally lists for $39.95 each. The company's ITC PostScript Type 1 faces are $29; its DesignFonts collection, in PostScript and TrueType formats, is $89.95. ITC Spot Fonts cost $49. Contact ITC for distributor information. Phone (212) 371-0699; fax (212) 752-4752; typeface1@aol.com.

Precision Type Inc. of Commack, N.Y., is giving away five fonts with the first purchase from its $29.95 CD-ROM collections. The company recently released FontLink 1.1, a set of three CD-ROMs containing font libraries from more than 30 foundries, including Adobe Systems Inc.; Agfa, a division of Bayer Corp.; Bitstream Inc. and The Font Bureau Inc. The fonts can be purchased by phone and unlocked from the CDs. Phone (516) 543-3636 or (800) 248-3668; fax (516) 543-6944.

Shepherding typefaces. Insider Software of San Diego has released an update to its $69.95 Font Box font-management utility. Version 1.8 can produce reports on the location and name of all fonts as well as a list of problems and possible solutions. Font Box provides a new location and name report on the fonts it reorganizes. A $159.95 version analyzes fonts on networked drives. Phone (619) 622-9900; fax (619) 622-9923.

— By Rebecca Gulick

Finally a Visual BASIC for Macintosh

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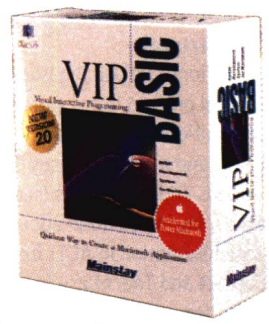

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BARGAIN SITE

Once priced at $595, Adobe SiteMill now sells for $279 — or $199 from Adobe's Web site at http://www.adobe.com.

Apple to serve Biscotti QT Java class library

Hopes for ties to Java media apps

By James Staten

Apple is hoping JavaSoft will adopt some of its multimedia technologies as part of the Java platform and has called on the ScriptX team to whip up the right solution.

At May's JavaOne developers conference in San Francisco, Apple unveiled a Java class library, code-named Biscotti, that adds QuickTime functions to Sun Microsystems Inc.'s Java programming language. Apple said it plans to submit the library this month to JavaSoft, the Sun division responsible for Java development, for possible inclusion in its upcoming set of Java media APIs (see 06.03.96, Page 4).

Class libraries are collections of capabilities that can be utilized by applets written in Java. Because Java is an object-oriented programming language, developers can easily incorporate a class of functions into their applets, rather than manually inserting code for each new function.

Biscotti will provide video, sound and animation playback, as well as imaging of styled text and 3-D graphics. Apple said the class library leverages the ScriptX development efforts of the now-defunct Kaleida Labs Inc.

Apple's Biscotti

A recipe for inclusion in the Java multimedia layer

- Sound (AIFF, .AU, MIDI, .KAR, .WAV)
- Video (QuickTime, MPEG)
- Animation
- Styled text
- Virtual Reality/3-D (3DMF, QuickTime VR, VRML)

Mix technologies in large Kaleida container, bake, then slice into classes and serve them to JavaSoft.

The majority of the classes will be based on QuickTime 2.5, allowing Java applets to play all forms of digital media supported by the technology, including QuickTime movies and Mac sounds as well as .AU, .WAV, MIDI, MPEG and QuickTime VR files. Apple said the library will also be optimized for superior playback by providing support for streaming media and double-buffering, which throws more information onto the screen for faster, flicker-free graphics performance. Biscotti will also free developers from the tedious

See Biscotti, Page 24

Tools runneth over from JavaOne cup

By James Staten

The first wave of Java applets and add-on classes has arrived.

In addition to JavaSoft's own media APIs and Apple's Biscotti, several third-party developers used Sun Microsystems Inc.'s JavaOne developers conference in San Francisco in late May to announce extensions for tools for the platform-independent language.

The following products are written entirely in Java and can be used within Netscape Navigator 3.0 beta or any of the Mac Java development environments:

- **Connect! Corp.** of Scottsdale, Ariz., shipped Connect! Widgets, a collection of user-interface components for Java. They include pull-down menus, tabbed dialog boxes, lists, buttons, 3-D labels and pop-up fields. The collection is priced at $399.95, and a demo version can be downloaded from http://www.connectcorp.com.
- **Finjan Software Ltd.** unveiled an applet that safeguards client machines from malicious Java applets. SurFin' Board, due this month on the company's Web site at http://www.finjan.com, is an applet that checks the integrity of applets downloaded to the client. Finjan, based in Industrial Zone Nenanya South, Israel, said the program will provide greater protection than the Java runtime environment and be able to disable offending applets automatically. Pricing has not been set.
- **KL Group Inc.** of Toronto showed two applets for creating Java-based tables. LiveTable and LiveTable Pro, due this month for $99 and $999, respectively, are non-WYSIWYG editors. LiveTable is an applet limited to simple table creation for nonprogrammers, while Pro requires knowledge of the Java language to create dynamic tables with images and embedded Java applets. A demo version of LiveTable can be found at http://www.klg.com.
- **Sun Microsystems'** SunSoft division in Palo Alto, Calif., unveiled Solstice Workshop, a Java-based developers tool kit that builds on the new Management APIs (see 06.03.96, Page 4). The

See Java, Page 24

YoYo empowers Caller ID

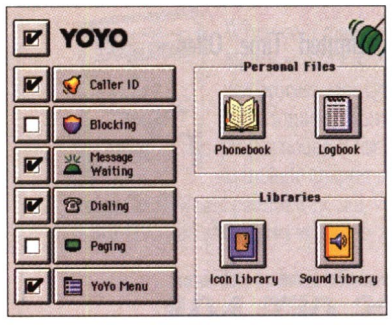
By Joanna Pearlstein

Telecommunications start-up Big Island Communications Inc. this week will ship its inaugural product, a computer telephony device called YoYo.

Aimed at small-office and home-office users, the $149 YoYo connects to a Mac's ADB port and a phone. It uses Caller ID to identify incoming callers, block calls, play sounds and send pages (see 01.08.96, Page 1).

YoYo can display information about a caller on-screen and look up that user's contact information in ACT! from Symantec Corp. of Cupertino, Calif., and Now Contact and TouchBase from Now Software Inc. of Portland, Ore.

Users can assign a sound to specific callers and send unwanted calls to voice mail or an answering machine. Its software can log incoming and outgoing calls, and, using its built-in 1,200-bps modem, send messages to a numeric or alphanumeric pager.



At your beck and call: Big Island's YoYo uses Caller ID information to identify and screen incoming calls.

According to Big Island the YoYo modem cannot be used for conventional telecommunications tasks.

Big Island Communications Inc. of Cupertino, Calif., can be reached at (408) 342-8300 or (800) 788-7751; info@big-island.com; http://www.big-island.com.

FaceSpan gets new owner and outlook

By Clifford Colby

FaceSpan has found a new home. Digital Technology International Inc. bought the AppleScript interface builder in May from Software Designs Unlimited Inc. of Chapel Hill, N.C., and plans to release an update this summer.

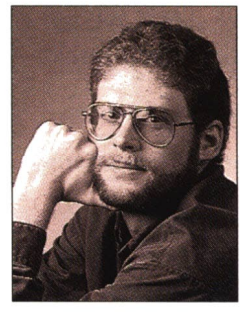
Digital Technology, which creates publishing software for the newspaper industry, said it intends to expand into other publishing areas, including the Internet, and will offer the $299 FaceSpan as a tool for its various publishing markets.

The company said it took over FaceSpan's sales and support at the end of May and plans to re-

See FaceSpan, Page 24

WORKING THE NET ADAM C. ENGST

Build a better Web on your intranet



Intranets are all the rage because it makes more sense to take advantage of inexpensive Internet technology than to install new proprietary systems. Also, intranets can provide content and design flexibility — even more so than on the Internet.

Bandwidth is less of a concern since internal networks are normally much faster than Internet connections. Plus, network administrators can mandate the use of certain client tools, or at least tools with a specific feature set. This gives internal content creators greater design flexibility without leaving any users behind. Delivering information through large Adobe Acrobat files is less problematic, for example.

Yet I encourage the use of conservative HTML on intranet Web servers for several reasons. First, some users might choose to

See Engst, Page 26

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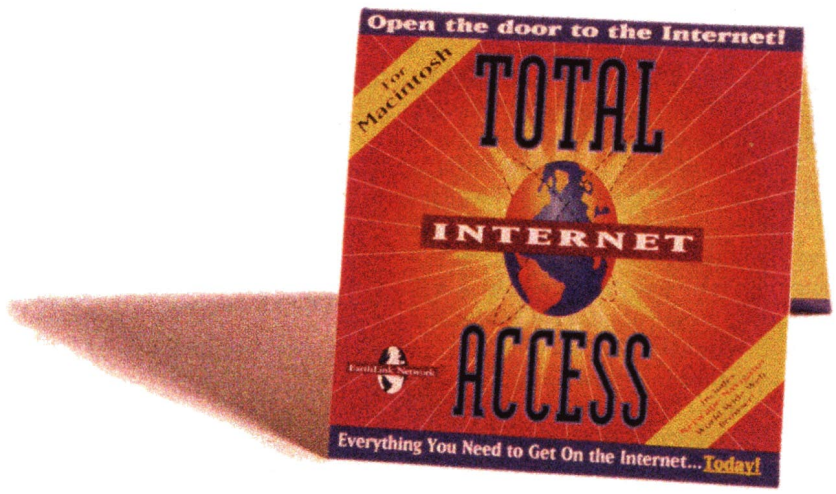

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Insignia ships NTrigue

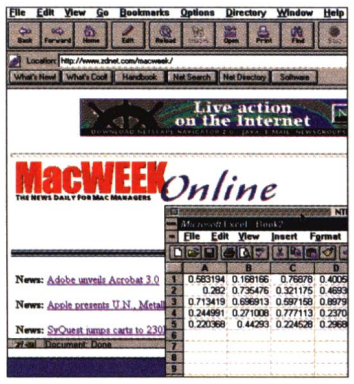
By Joanna Pearlstein

Insignia Solutions Inc. last week released a new version of NTrigue, the company's Microsoft Windows NT-based X client.

Based on the X Window System, NTrigue runs on a Windows NT server and lets a variety of workstations enter network-access Windows applications from their desktops. Mac users can access NTrigue through an X Window client such as the $1,995 eXodus from White Pine Software Inc. of Nashua, N.H. (see 05.06.96, Page 16).

Version 2.0 includes a new autolaunch feature that lets organizations embed Windows applications in their Web sites, Insignia said, thereby letting companies integrate database capabilities in Web servers without CGIs (Common Gateway Interfaces).

A smaller and faster X driver significantly improves NTrigue 2.0's performance, Insignia said.



Insignia Solutions' NTrigue 2.0 lets Mac users launch Windows applications via an X Window client.

The new X Windows Display Manager lets administrators install the client without having to provide each user with the client's Internet Protocol address.

Insignia Solutions Inc. of Santa Clara, Calif., is at (408) 327-6000 or (800) 848-7677; fax: (408) 327-6105; ntrigue@isinc.insignia.com; http://www.insignia.com.□

Java

From Page 22

kit, due in the fall, will provide a set of objects and methods for writing system- and network-administration applets. The kit will include Java Workshop, Sun's programming environment for the language; a class browser; and applet-coding plug-ins to handle the task of registering the applet with the runtime environment. A demo of Solstice Workshop is at http://www.sun.com/solstice/products/workshop.html. Pricing has not been set.

▶ **Thought Inc.** of San Francisco introduced three new class libraries for Java. Nutmeg, priced at $395, is a list-management library that emulates the SmallTalk Collection Class. The $695 CinnaMoney is a mathematics class for performing financial and engineering calculations. Vanilla Search, priced at $295, is a wildcard-searching class, which supports queries in plain English syntax and performs pattern matching. Nutmeg and CinnaMoney are available now from http://www.thoughtinc.com; Vanilla Search is due this summer.

SunSoft's Solstice Workshop, shown here running on Unix and due out in the fall, is written entirely in Java.

▶ **WebLogic Inc.** of San Francisco debuted a suite of Java-based drivers for building applets that replace Web CGIs (Common Gateway Interfaces) and network utilities. Users will be able to deploy the applets in stand-alone fashion or in conjunction with the company's T3Server, a Java-based middleware product for multitiered networks. The Kona line of drivers, priced from $2,000, will provide event management, network protocol reading and rule introduction. The T3Server plus one driver will cost $6,000.

The company also showed the $500 htmlKona, a scripting language that will generate HTML. All of WebLogic's products are due this summer.

▶ **Zydecom Inc.** of Shreveport, La., announced plans to write a real-time operating system in Java that will enable high-speed videoconferencing and video-on-demand over high-bandwidth technologies, including cable modems, ISDN, Asynchronous Transfer Mode and Digital Subscriber Line. Zydecom said the new OS, called I-97, will be out in early 1997. □

Biscotti

From Page 22

task of writing paint methods, Apple said.

The class library will also provide a number of transition effects, such as wipes, fades and dissolves; support for multiple refresh rates; time-synchronization controls; and behaviors such as gravity and collision avoidance.

Apple said Biscotti will be readied for delivery in stages starting in the second half of 1996. A full library, dependent on the Java media API standard process, could be ready in the first half of 1997.

The first classes to arrive will be a suite of players for Mac and Windows that developers can embed into their applets. Unlike MoviePlayer, which is a single application for playing back all media supported by QuickTime, the player classes will provide small players that support a particular type of media. For example, if the applet supplies the user with a MIDI file, a small MIDI player will be delivered with the applet. This approach will keep Java applets small and reduce bandwidth concerns for multimedia delivery.

Unix players will not be delivered initially by Apple. The company said players for these platforms will most likely come from Sun and other Unix developers once the media APIs have been finalized.

Despite the amount of work going into Biscotti, Apple said it does not plan to come in heavy-handed with its technologies. "We want to work with JavaSoft and its partners on this one" said Michael Papp, senior software engineer for the project at Apple. "We'll support whatever final APIs are decided upon." □

FaceSpan

From Page 22

lease Version 2.1 in July.

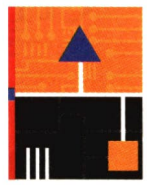
The update will be free to registered users of FaceSpan 2.0 and will provide better integration with the UserLand Frontier scripting language. Users of versions prior to 2.0 will be able to upgrade for $99.

Digital Technology said it plans to integrate OpenDoc into a future version of FaceSpan, allowing developers to create OpenDoc parts.

Terms of the acquisition were not disclosed.

Digital Technology International Inc. of Orem, Utah, can be reached at (801) 226-2984; fax (801) 226-8438; facespan@dtint.dtint.com; http://www.dtint.com. □

NETWORK TRAFFIC



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- **4-Sight ships ISDN manager**
- **MIND now Nonsequitur**

Powersoft Corp. of Concord, Mass., last week shipped a beta version of PowerBuilder 5.0. The new release of the $3,295 object-oriented, client-server development tool is Power Mac-native and lets users create Internet applications. It can be downloaded from http://www.powersoft.com. … **4-Sight L.C.** is shipping iSDN Manager 4.0, the new version of the West Des Moines, Iowa, company's file transfer software for the pre-press market. Version 4.0 adds QuickProof, a screen-sharing technology; remote file retrieval; a QuarkXTension; and plug-ins for Macromedia FreeHand, and Adobe Illustrator, PageMaker and Photoshop. iSDN Manager 4.0 costs $2,795, and upgrades from Version 3.0 are $199. … The freeware domain name server MIND has been renamed and updated by its publisher, **Glenn Anderson.** Now called Nonsequitur 0.8, the updated server is compatible with Open Transport, supports wild cards and displays statistics in its About box. Users can download the new version from http://www.gross.net/sw/nonsequitur. … **Farallon Computing Inc.** of Alameda, Calif., changed its name to **Farallon Communications Inc.** for its initial public offering and debut on NASDAQ. Farallon is expected to offer 2 million shares of common stock June 13; prices are expected to be between $13 and $15. … **Global Village Communication Inc.** of Sunnyvale, Calif., invested $4 million in Ex Machina Inc., a private New York-based developer of paging software. Global said it expects to collaborate with Ex Machina and ship the first joint product in a few months. … **Novell Inc.** reported a higher than expected loss for its second quarter, ended April 27. The Orem, Utah-based networking giant lost $55.4 million compared with a $95.9 million profit in the year-ago period. Second-quarter revenues fell to $188 million from $529 million in 1995. … The headaches of trading e-mail enclosures between divergent platforms and LAN communications systems could become a thing of the past using **Clarity Software Inc.'s** Clarity Compatibility Server. The $10,000 server is a Unix-based middleware application that reformats incoming e-mail to meet the style and protocol needs of a user's e-mail system and platform. Mountain View, Calif.-based Clarity said the server converts uncompressed enclosures to the file format of the recipient's word processor. … **Symantec Corp.** has given a name to its latest Java development environment, which it showed at the Apple Worldwide Developers Conference in San Jose, Calif. in May (see 05.20.96, Page 20). The environment, code-named Ninja, has been replaced by the official moniker, Visual Cafe, and the software will be available free this summer to owners of the $99 Cafe. The Cupertino, Calif.-based company said Cafe users will be able to download a beta version of Visual Cafe this month from http://cafe.symantec.com. □

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Engst

From Page 22

use client tools other than those approved by the IS department. Second, embracing new multimedia technologies often means requiring employees to run Netscape Navigator plug-ins, most of which are currently as reliable as election-year promises.

Finally, remember that internal services should focus on content, clarity and ease of use, not flash. Save the showmanship for your external communications, where gaining attention is more difficult.

Efficient administration

If you decide to use multimedia technologies that require plug-ins, you can reduce plug-in management headaches by storing a folder of the latest versions of the approved plug-ins and putting aliases to them into the Netscape Navigator folder or Microsoft Internet Explorer folder. In addition, consider providing a standard set of bookmarks in a shared folder; if you use something like CyberFinder from Aladdin Systems Inc. of Watsonville, Calif., the bookmarks become independent of an individual's Web browser.

Security issues

Security is always a concern with Internet-connected machines, but Macs have proven extremely secure. WebStar, a Web server from Quarterdeck Corp. of Marina Del Rey, Calif., has Realms and Allow/Deny features, which help limit access to certain folders or to machines on a network. Software like NetCloak from Maxum Development Corp. of Streamwood, Ill., can restrict access to pages or even parts of pages based on an Internet Protocol number or password. Think carefully about restricting sensitive information to just those people who need it.

For editing or placing information on a Web server, it's a good idea to allow only AppleTalk access, and make sure the server is properly password-protected. If you must enable FTP uploads, make sure to require a user ID and password, and never allow FTP upload access to your Web server's hierarchy. Doing so could enable a hacker to upload and execute a custom CGI (Common Gateway Interface).

Finally, store any information of utmost sensitivity on a machine that's not connected to the Internet at all, and keep it in a secure room.

Sharing servers

What if you also want to serve information to the public via the Web? A Web server outside an expensive firewall is a fine option, but it might be overkill. Instead, consider setting up two Macintosh Web servers, one public and the other private. If two machines are not feasible, you could run two copies of your Web server software on the same Mac (one must use a nonstandard port number). If this also isn't an option, be very careful about your security setup.

If you have information that's not sensitive but you don't want appearing in Web search engines, create a specially formatted text file called robots.txt in the root directory of your Web server. This file will block most standard Web crawlers and other automated search tools from cataloging parts of your site. For formatting details and more information, see http://info.webcrawler.com/mak/projects/robots/norobots.html. □

Adam C. Engst is editor of TidBITS and author of "Internet Starter Kit for Macintosh." He can be reached at interq@macweek.com or http://www.tidbits.com

Diamond moves Supra modems to 33.6 Kbps

By Joanna Pearlstein

The company formerly known as Supra Corp. is planning to up the ante on modem speeds.

Diamond Multimedia Systems Inc.'s Communications Division will begin offering 33.6-Kbps upgrades to customers who purchased a Supra 28.8-Kbps modem after March 31. Customers desiring the 33.6-Kbps capability will pay only the shipping and handling costs, the company said.

Those customers who purchased modems before April 1 can also obtain the 33.6-Kbps upgrade. SupraExpress owners who bought their modems before that date can receive the upgrade for $10 plus shipping and handling costs. SupraFAXModem and SupraSonic owners will be able to download the higher-speed support from the company's Web site and BBS for free. The upgrade kits and firmware will be available at the end of June.

All of Diamond's V.34 modems will now support transmission speeds up to 33.6 Kbps, the company said.

The 33.6-Kbps standard is expected to receive final approval from the International Telecommunication Union this month; that standard will likely retain the V.34 moniker.

In other modem news, Hayes Microcomputer Products Inc. in May dropped prices on its Accura modem line. The Accura 288 V.34 + FAX dropped to $209 from $239. Accura 144 + FAX dropped to $109 from $129.

Diamond Multimedia Systems Inc.'s Communications Division of Vancouver, Wash., can be reached at (360) 604-1400 or (800) 727-8772; fax (360) 604-1401; http://www.supra.com.

Hayes Microcomputer Products Inc. of Norcross, Ga., can be reached at (770) 441-1617; fax (770) 441-1238; support@os.hayes.com; http://www.hayes.com. □

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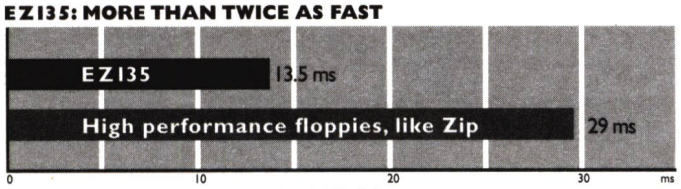

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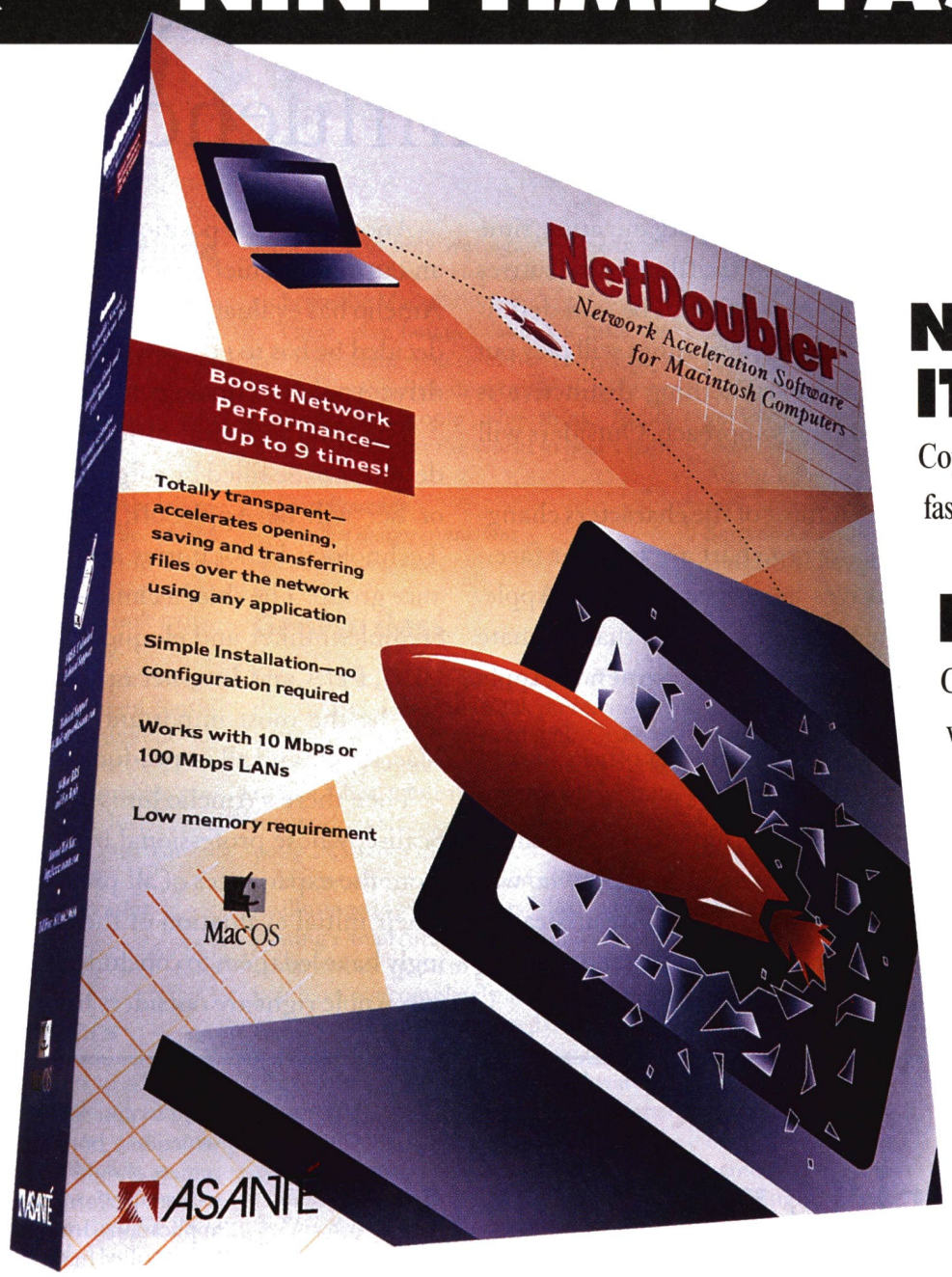
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BPA INTERNATIONAL

Outside influence

As with any corporate reorganization, time will tell. Apple's reshuffling of executives is no different. Little can be said definitively now about how things will play out with this new regime, but something distinctive is emerging in Gilbert Amelio's approach. Outsiders will be running the show.

Certainly it's true that most of the characters changing slots on the company org chart are familiar faces. Many of these executives have spent years at Apple. But if you look at the very top you'll see that ultimate power lies in the hands of people who are new to Apple and its corporate culture.

Marco Landi, the new chief operating officer, joined Apple little more than a year ago. He's now the No. 2 executive. His 25 years at Texas Instruments Inc. overshadowed Jim Buckley's decade at Apple. Buckley, who was said to be Amelio's alternative for COO, had steadily risen through Apple's ranks, but he didn't stand a chance as Landi's opponent. Insiders are out at the top.

Another critical position that will undoubtedly go to an outsider is chief technical officer. This means that Amelio has evaluated the technical talent on hand and decided he has to go elsewhere to find the best mind to drive Apple's technology future.

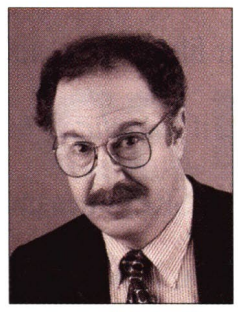
The chief technical officer position at Apple is not designed to be filled by a figurehead. Reporting to him or her will be AppleSoft, AppleNet, the Advanced Technology Laboratories and Apple's quality assurance group. The chief technical officer will need to be a credible thinker and eloquent communicator on OS, CPU, PDA and Internet issues. Next to Amelio, this will be the most important person who defines the Mac, Apple and all its products for the next decade.

Then there's Amelio himself and his cohort George Scalise, whose professional backgrounds differ vastly from the experiences of all previous Apple executives. Their initial evaluation of the company's woes seemingly have led them to conclude that those best suited to run Apple right are outsiders like themselves. □

THE SECOND DECADE HENRY NORR

PowerPC progress is no cause for complacency

RISC proponents should know by now that it doesn't pay to underestimate Intel Corp., no matter how much CISC baggage it has to carry. For the moment, as I discussed last week, the PowerPC camp is sitting pretty. But next winter will bring major challenges — on both technical and marketing fronts — from Intel.



Pentium proliferation

Those challenges will be embodied in several new processors. Late this year Intel is expected to begin volume production of a next-generation Pentium, currently known as the P55C. A few months later another chip, code-named Klamath, will bring Pentium Pro technology — and performance — down to mainstream price points.

Intel is reportedly shooting for speeds of up to 266 MHz with Klamath; by the end of 1997 a cousin, code-named Deschutes, is expected to break the 300-MHz mark. (The details come from the Microprocessor Report, a Ziff-Davis newsletter from Sebastopol, Calif., but other sources, including some close to Intel, confirm its predictions.)

M-M good?

Such a breathless pace would be mind-boggling in most industries, but in the semiconductor world it's old hat, and with luck PowerPC speeds will advance at least as fast. But next year's Pentiums will also incorporate a less common kind of enhancement: For the first time since the introduction of the 386 in 1985, Intel is making major additions to the x86 instruction set.

Collectively called MMX (for multimedia extensions), the new instructions are designed to speed operations commonly used in processing audio, video, and 2-D and 3-D graphics, as well as communications and speech synthesis and recognition. Developers will have to modify their software to take advantage of the 57 new instructions, but once they do, their customers should enjoy a 50 percent to 300 percent performance boost in multimedia applications, Intel boasts.

I've asked many of my contacts in the industry what they think of these claims. At Apple, I'm sorry to report, I have yet to find anyone who's paying any attention. Among outside observers, the reaction is mixed. Some, even including some Wintel boosters, dismiss MMX as pure hype, unlikely to make any more difference than "native signal processing," last year's now-forgotten multimedia initiative from Intel. Other sources see more substance in MMX but regard it as an odd kludge, and one that still leaves the x86 way behind the PowerPC as a multimedia processor.

Finally, other well-placed observers — including some developers who work on both platforms — take MMX seriously, especially in conjunction with other innovations coming soon to the Wintel world. In fact, they say, if Apple and its PowerPC partners focus only on topping Intel in the megahertz charts, they could face a real threat to the Mac's lead in key graphics and multimedia markets. More on the challenge, plus some thoughts about how Apple might respond, in upcoming columns. □

Henry Norr, editor emeritus of MacWEEK, welcomes feedback in the MacWEEK forums on CompuServe or at henry_norr@macweek.com.

LETTERS

Make apps fully scriptable

Just read Clifford Colby's article on the revival of AppleScript (05.27.96, Page 1). It's a shame that it has taken so long for Apple to realize how important this technology is for Mac OS users. At my company, we use AppleScript to save money, time and frustration.

The first order of business for Apple's revival of AppleScript should be to get as many developers as possible on board to make their applications fully scriptable. Adobe Photoshop, for example, isn't scriptable, and this is a big hole to plug.

The other major task for Apple is to get individual developers to maintain consistent support of scripting throughout different releases of their products. There have been instances when a scriptable program's dictionary has been reduced from release to release, and this has caused major problems to script users.

Daniel Loebl, technology specialist
Lands' End Inc.
Dodgeville, Wis.

Hybrid SKU dangers

Brian Michael Ross suggests in a letter to MacWEEK that "Hybrid Windows/Mac boxes save everyone money and time" (05.27.96, Page 21). At MacPlay, a Mac game software company, we believe that an industrywide shift to a hybrid SKU would be madness, probably leading to the death of the Macintosh platform.

Mr. Ross is correct that it would be easier to sell hybrid SKUs to retail, making life easier for buyers as well as the sales force. Consumers, though, end up the big losers in this scenario. Imagine having to shop one huge "Computer Software" shelf, seeking out the one out of 10 software packages that works on the Mac?

As the years go by, hybrid SKUs will make it difficult or impossible to estimate whether any consumers even use the Mac part of the product. This leads to the bean-counters axing Mac development at many companies, as we are faced with no proof that developing on the Mac earns any additional revenue on the hybrid SKUs.

Bill Dugan, Macintosh high priest
MacPlay
Irvine, Calif.

Attitude adjustment

Most people missed Don Crabb's point on Visioneer's PaperPort (05.06.96, Page 21). They adopted the attitude to tell Visioneer to "go to hell," which sums up one of the problems in the Mac community. Mac enthusiasts seem to think that they're fighting some kind of holy war against Microsoft/Intel and anybody else that doesn't fully embrace the Mac platform.

These Mac fanatics take it a little too far with their you're-either-completely-with-us-or-against-us attitude. I have no patience for people who think Apple should just expect the world to beat a path to its door.

Scott Boucher
Graphic design consultant
Fort Wayne, Ind.

GeoPortless

Hey, Apple! Screw your Copland OS of the future! I'm still stuck here, in the present, using your outdated GeoPort Telecom Adapter with its blinding speed of 14.4 Kbps, while the rest of the computing world is already growing tired of their poky 28.8-Kbps modems.

It's not nice to turn a blind eye to all your disillusioned GeoPort users who have been posting e-mail messages throughout cyberspace in their quest to gain even a hint that you have not completely abandoned them and their 14.4 GeoPort speed demon.

Personally, I think you should buy back the GeoPorts that you sold to us loyal and trusting Macheads, then we could put that money toward the purchase of 28.8 third-party modems.

Randy Lee, writer
Philadelphia

Return our calls, too

Amen, brother (05.27.96, Page 21)! Almost daily, I defend Apple, its technologies and its presence in our corporate computing environment. I climb the soapbox and spread the gospel of Mac to the hordes of Wintel unbelievers. The force of my personality has prevented my company from devolving to a one-OS standard.

Those of us on the front lines would appreciate some support from Cupertino. We don't require much (maybe a mug, or a "Mac Managers have fewer hard drive problems" T-shirt), just something from Apple to show us that Apple knows we exist and wants us to succeed.

Jim Kezman, communications manager
Ferno-Washington Inc.
Wilmington, Ohio

How to contact MacWEEK

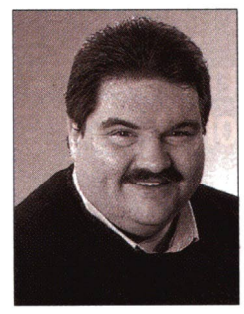
Send letters to MacWEEK, 301 Howard St., 15th Floor, San Francisco, Calif. 94105; fax (415) 243-3651. We can be contacted online: CompuServe, 76077,1351; Internet, letters@macweek.com. Include your name, address and phone number. We reserve the right to edit for clarity and length.

THE MAC MANAGER DON CRABB

Smartware could make presentation content soar

Here's a scene familiar to all of you: You're working in some hotel room, or your office, the night before an important presentation, and you're cussing the software because it can create only the visual part of your talk.

I'm in a hotel now doing just that. I've got my PowerBook loaded with the same tools you use: Microsoft's PowerPoint, Adobe's Persuasion and Claris' Impact. I even have Macromedia's Director, Pierian Software's Digital Chisel and XChange's LinkIt. Although the last two come the closest to giving a ham-hands like me a real presentation development environment, even these programs miss out on one vital part: substantive content support.



Let's get smart

This brings me back to a topic I explored a couple of years ago — smartware (see 04.11.94, Page 51) — that would use the techniques of artificial intelligence, case-based planning, inference engines and topical expert systems. Smartware would be capable of helping you create content, regardless of the venue; lead you through the logic of, say, a compelling presentation; tap into databases, the World Wide Web and your own files to expand your purview of content in ways that make sense and add meaningful context.

Unfortunately, smartware has not caught on. Instead, we've redefined the problem in terms of the documents being created and edited; this is part of the rationale behind OpenDoc. There is nothing wrong with moving toward that document-centric architecture. In fact, it's a necessary first step if smartware is ever going to have a hope of becoming real.

But here I sit, mid-1996, struggling to produce a first-rate presentation because the tools available to me care nothing about the meaning of my content and everything about how it looks, feels and sounds.

Don't be a brute

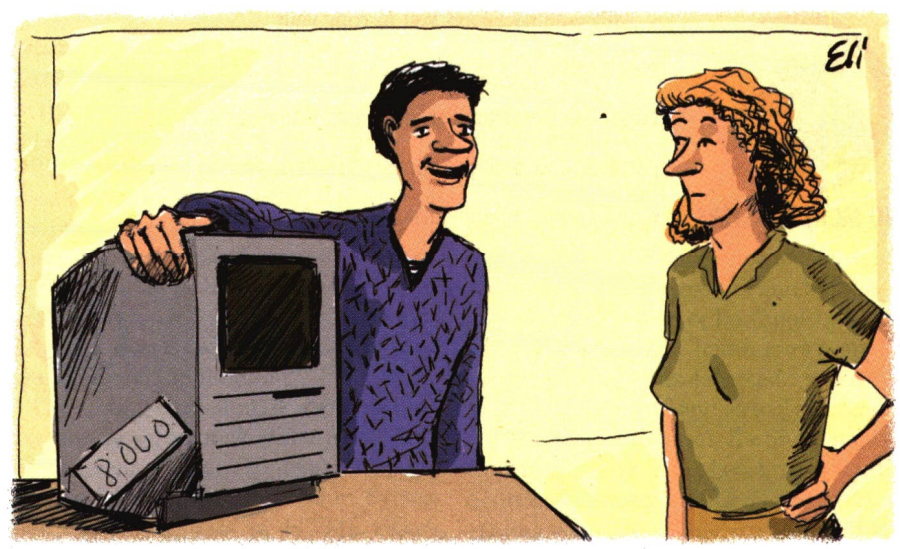
The problem is one of sophistication. I don't expect smartware to replace my thinking, my wisdom or my expertise. That would require a kind of computational brute force that does not yet exist on the desktop. What I need is software to extend what I know, without forcing me to become an expert in how to use the program.

For example, suppose I have just created a series of slides categorized as "background material," and another set of slides I call "supplementary anecdotes." Smartware ought to understand the relationship between these groups of slides beyond the logical order an outliner might provide.

Smartware would parse their contents, make some inferences about that content and then offer suggestions on the best way to exploit it. It could also tell me that the content — or its relationship to the thesis of my talk — is all wet. It could then, based on its capability to tap other information sources, suggest alternatives, logical changes or other edits to improve the presentation.

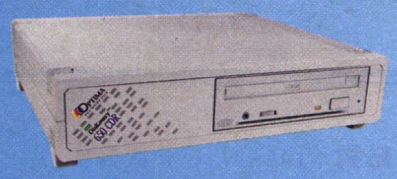
Creating smartware won't be easy, but if Apple and Mac developers want to start carving out a bright future, it's a helluva good place to start. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.



"I know it's only an SE, but the hard drive was originally used by Jackie Onassis."

Comments? Ideas? Contact Eli at elitoons@aol.com



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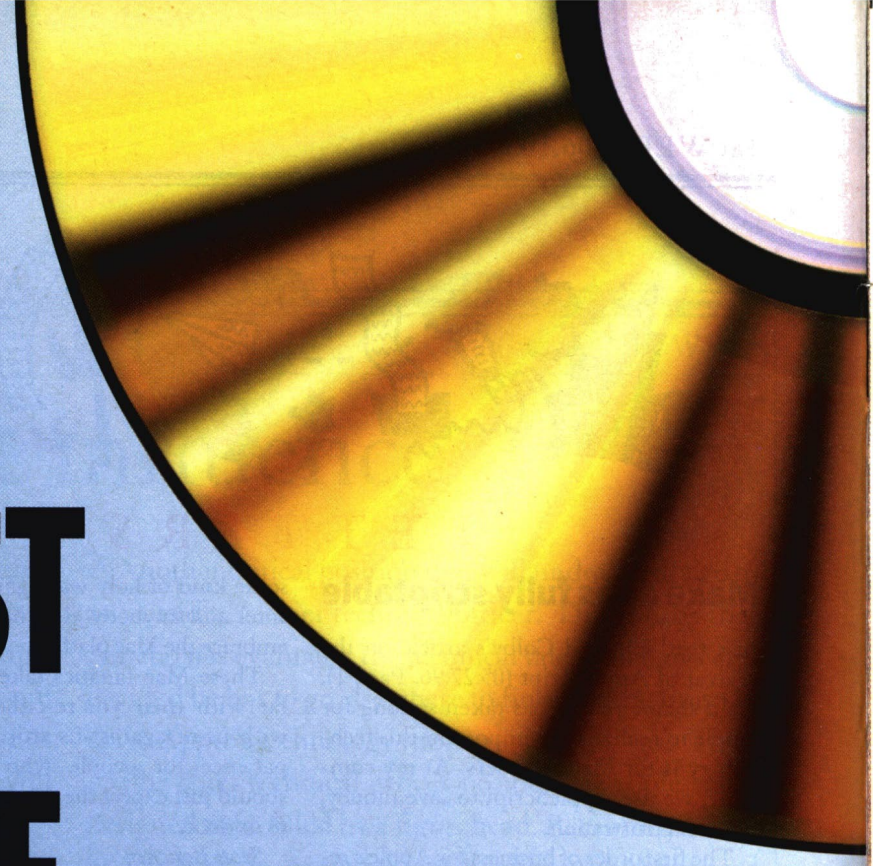

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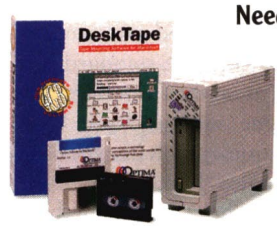

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JAVA MOVES AHEAD

Mac Java tools have come a long way in three months. See 03.18.96, Page 1, to see just how far.

Agfa's DuoScan hits the mark on price/performance

By Rick LePage

At Comdex/Fall '95 last November, Agfa, a division of Bayer Corp., showed off the DuoScan, a revolutionary new flatbed scanner that promised to bring high-resolution scanning to a previously unheard-of price point.

After a couple of false starts, Agfa has finally begun shipping the DuoScan in volume, and in many ways the $5,500 scanner fulfills the lofty goals the company set last fall.

The unique TwinPlate design reduces the problem of optical distortion.

The basics

The DuoScan has a true optical resolution of 1,000 by 2,000 dpi and can scan both reflective and transmissive originals at up to 16 bits per pixel.

The maximum scan area for reflective artwork is legal- or A4-size documents, and 8 inches by 10 inches for positive or negative transparencies. The scanner's cover automatically adjusts to accommodate books or thick originals.

The DuoScan ships with a full version of Adobe Photoshop and Agfa's FotoLook plug-in for acquiring images. It also includes a stand-alone version of FotoLook, which can batch-scan a group of originals of different types. Agfa rounds out the package with its FotoTune color-management software, which allows the RGB scanner to convert captured images to CMYK on the fly and sharpen them, if necessary. All the software is included on two nicely organized CD-ROMs, each with documentation in Adobe Acrobat format.

Agfa includes holders for scanning single frames of 35mm and 120 film; the company also sells optional batch holders for those formats and 4-by-5-inch film.

What ultimately makes the DuoScan unique is neither its price nor its resolution; it is the mechanism that Agfa calls TwinPlate, which the DuoScan uses to scan reflective and transmissive originals.

Two plates better than one

Instead of placing a transparency adapter, with its own light source, above the scanning glass, the DuoScan has a transparency tray beneath the CCD (charge-coupled device) array. Twin mirrors are embedded in the scanning mechanism, one for scanning reflective materials (such as photos and original artwork) and the other for scanning transparencies. This means there is no glass between the transparency and the CCD, reducing the most common problem when scanning chromes: optical distortion.

score card

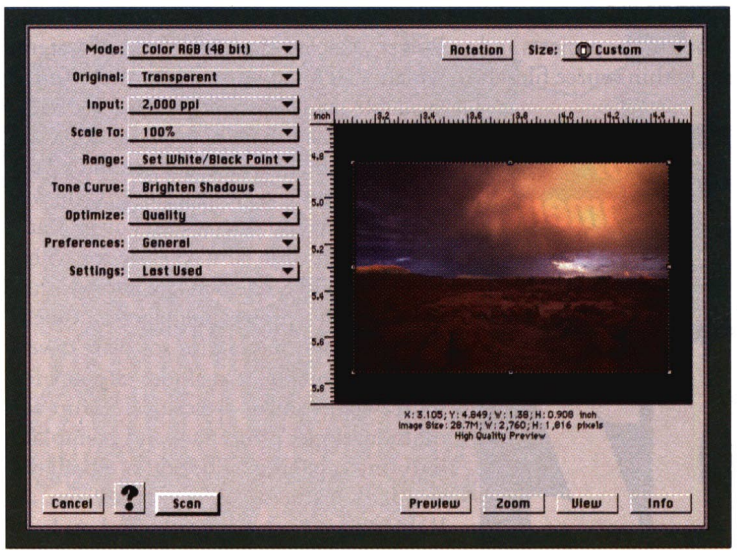
DuoScan

Agfa, a division of Bayer Corp.
List price: $5,500
Overall value ◆◆◆◆◆

With the DuoScan, Agfa swung for the fences and succeeded, delivering a scanner with good software, true 1,000-by-2,000-dpi resolution, high dynamic range and an innovative transparency tray that blows away the competition in the under-$10,000 flatbed market. While we're sure that competitors such as Linotype Hell Co., UMAX Technologies Inc. and Nikon Electronic Imaging Systems Inc. are working on their own answers to the DuoScan, Agfa can crow that it owns this market for now.

Performance	◆◆◆◆
Features	◆◆◆◆◆
Configuration	◆◆◆◆◆
Compatibility	◆◆◆◆◆
Documentation/support	◆◆◆◆◆

Key ◆◆◆◆◆ *Excellent* ◆◆◆◆ *Very good* ◆◆◆ *Good* ◆◆ *Fair* ◆ *Unsatisfactory*



The FotoLook software that comes with the Agfa DuoScan is good, despite its fixed-size preview window. The scanner can capture reflective artwork and transparencies at up to 16 bits per pixel, which can be helpful when dealing with difficult images.

The TwinPlate technology by itself wouldn't mean much if the scanner's hardware specs weren't equally impressive.

As mentioned, the DuoScan has a true optical resolution of 1,000 by 2,000 dpi and an interpolated resolution of 4,000 dpi. By contrast, none of Agfa's competitors in the midrange scanner market — Linotype Hell Co., UMAX Technologies Inc., Nikon Electronic Imaging Systems Inc. and Microtek Lab Inc. — offers a scanner with an optical resolution of more than 600 by 1,200 dpi.

High dynamic range

The DuoScan's maximum dynamic range is 3.3, and it has a dMax (maximum black) of 3.4, both of which are above and beyond any flatbed scanners in the less-than-$10,000 category and allow the DuoScan to scan troublesome images with ease. In addition, the DuoScan's resolution and superior scanning capabilities mean that many scan jobs that might previously have been sent out for final preparation can now stay in-house.

See DuoScan, Page 34

Java tools CodeWarrior, Roaster, Café ready to roll

From Page 1

hard-core, large-scale developers. We tested tools from all three companies and found them to be roughly equal in terms of power and convenience.

Natural Intelligence's Roaster

Natural Intelligence's $299 Roaster was the first Mac-based Java development system available, and its Developer Release 2 (DR2) — so named because the company doesn't consider it sufficiently polished to be a full-blown 1.0 release — is a marked improvement over DR1 (see 02.19.96, Page 1). Roaster is an IDE (integrated development environment) that contains a project manager, source-code editor and the Java compiler in one application.

The editing environment supports syntax coloring, which makes it easier to identify different program elements by highlighting Java keywords by color. Syntax coloring also appears in HTML documents opened in Roaster; and while the environment is not designed for serious HTML editing, it's nice to have built-in support for it. The editor also features multiple clipboards, which are handy when working on large or complex programs. Finally, the Roaster IDE has an integrated class browser for viewing Java class hierarchies.

Roaster uses Sun's Java compiler as its primary compiler. Natural Intelligence has also developed a Java compiler, but the release notes for DR2 are laudably candid about its instability.

Once Java source files are compiled into .class files containing Java byte codes, they are ready to be debugged with Roaster's byte code-only debugger, or run by a Java-capable Web browser or Java applet runner. Roaster has its own home-grown applet runner (to test your Java code in a real-world environment) and virtual machine.

The virtual machine is the foundation of Java, as it interprets the Java byte codes and actually does the work for a Java applet. A typical virtual machine is similar to the 680x0 interpreter in first-generation

See Java, Page 32

Java

From Page 31

Power Macs: It analyzes a Java byte code's function and performs the work on the native processor.

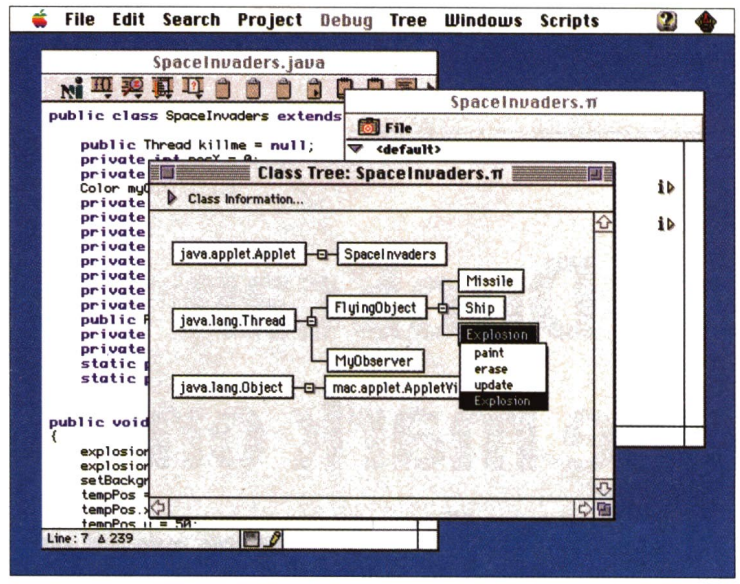
While Roaster is certainly full-featured, its environment still shows signs of immaturity. For example, the project window conveys little information beyond the names of files contained in the projects and the classes contained within source files. It would be nice to see project status and similar information that developers now expect from other IDEs. Further, for a brand-new environment, Roaster doesn't boast any significant innovations to the project-oriented paradigm.

Symantec Café

Café is based on the Symantec C++ for Power Macintosh development system, which also includes the Java tools and is available on a subscription basis for $399. Instead of the full set of tools, the $99 Café comprises the project manager and a Java compiler. At the time of writing, Café was at DR1 and could run only on Power Macs, but Symantec introduced Café for 680x0 Macs with DR2, released late last month.

Symantec's project manager is a well-designed environment for software development. Notably, it includes support for source-code control — a critical feature for multideveloper projects — and exemplary scripting capability. The editor has all the standard features you'd expect from an IDE, such as syntax coloring for Java keywords, a function pop-up and the capability to integrate with Café's built-in class browser. Café's virtual machine is based on Sun's and has no special features to distinguish it. However, the DR2 upgrade to Café, free to registered users, has a virtual machine outfitted with a just-in-time (JIT) compiler.

A JIT compiler works like the 680x0 emulator on PCI-based Power Macs. The JIT compiler translates Java byte codes and temporarily stores them for possible future use. If needed, the already-translated versions can run immediately. The final outcome is that JIT compilers allow Java applets' performance to come significantly closer to that of more traditional, non-Java-based applications. Without a JIT compiler, Java applets can be painfully slow, which is debilitating for graphics-intensive applets.



The IDE in Natural Intelligence's Roaster DR2 provides standard features such as Java syntax coloring and tree views of an applet's subclasses.

Café also comes with a novel development tool: Café Studio, which is a visually oriented tool for building user interfaces for Java applets. Unlike the Mac or Windows, which have standard resource formats for interface elements such as windows, dialog boxes and buttons, Java has no such norms. While the elements themselves are contained in the standard Java class library, developers must write code to use them. Café Studio takes the drudgery out of interface generation by letting developers work with elements they already know, such as check boxes and styled text.

CodeWarrior's Java tools

As with Symantec's offering, Metrowerks' Java tools are integrated into its existing IDE. In the case of CodeWarrior, the simple addition of the Java compiler, linker and base classes turns CodeWarrior into a Java development environment. These additions are now included in the $399 CodeWarrior Gold. The IDE with Java tools alone is available separately for $99 in the Discover Programming with Java kit.

CodeWarrior comes with several project templates for different types of Java software, which is a great convenience. Besides conventional .class files, CodeWarrior allows developers to create .zip files, which contain multiple .class files in a single package for easy transport. CodeWarrior can also create executable Java applications.

Debugging is well-integrated in the existing CodeWarrior environment. The CodeWarrior Debugger, which already works with C, C++, Pascal, and 680x0 and PowerPC assembly language, now supports Java byte code- and source-level debugging as well.

CodeWarrior's virtual machine, like Symantec's, is based on Sun's, although it has a number of additional status displays (such as memory usage) that go beyond what the standard virtual machine offers. Besides these bonuses, the CodeWarrior virtual machine is pretty much the same as those of the other environments.

The CodeWarrior Java development environment is otherwise identical to the standard CodeWarrior IDE that is familiar to developers. It's project-based, the editor supports syntax coloring and all the standard editor features, and it has a built-in class browser.

Conclusions

Fortunately for developers, Java development tools for the Macintosh have quickly moved beyond Sun's minimalist Java Development Kit.

Each of the three products here has its own strengths and weaknesses, yet none is significantly ahead of the others. Since Natural Intelligence's Roaster is the newest of the bunch and there hasn't been time to smooth out the rougher user-interface edges, it will feel somewhat unpolished to those familiar with Symantec's or Metrowerks' environments. However,

See Java, Page 34

score card

Mac Java development environments

While Sun Microsystems Inc. promises to bring Java software to all platforms equally, existing Mac Java tools are aimed squarely at the professional developer populace.

- **CodeWarrior** from Metrowerks Inc. now includes Java tools that are the most complete of the bunch, due in no small part to their source-level debugger and mature IDE. Writing Java in CodeWarrior is experientially no different from writing C++ code, and brings with it all the advantages of Metrowerks' environment.
- **Roaster** from Natural Intelligence Inc. sports an IDE that is a newcomer to the Mac development tools field. Nonetheless, it offers a full-featured development system, sans source-level debugging.
- **Café** from Symantec Corp. currently lacks debugging tools, but it makes up for the deficit with Studio, a unique way to create user interfaces for Java applets. Like CodeWarrior, it is born of a pre-existing IDE, making it a mature and stable choice for developers accustomed to the Symantec C++ environment.

	CodeWarrior 1.0.1	Roaster DR2	Café DR1
Overall value	◆◆◆◆	◆◆◆	◆◆◆◆
List price	$99*	$299**	$99***
Performance	◆◆◆◆	◆◆◆	◆◆◆◆
Features	◆◆◆◆	◆◆◆	◆◆◆◆
Ease of use	◆◆◆	◆◆◆	◆◆◆
Documentation/support	◆◆◆	◆◆◆	◆◆◆

** For the stand-alone Discover Programming with Java kit; Java tools are also included as part of the $399 CodeWarrior Gold subscription package.*

*** For a three-CD subscription.*

**** Until July 22; $299.95 thereafter. Price is for the stand-alone package; Café is also included as part of the Symantec C++ subscription package, available for $399.*

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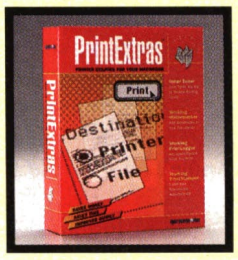

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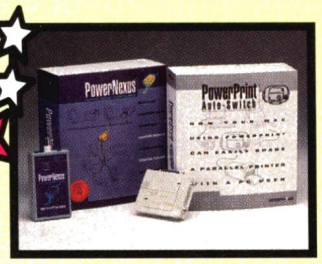

PowerNexus

PowerNexus is your LocalTalk to EtherTalk hardware bridge solution. The small, lightweight bridge will connect up to four of your LocalTalk networked computers, printers or other peripherals to your 10Base-T or Thin Coax EtherTalk network.

AutoSwitch

AutoSwitch is an inexpensive, automatic switchbox which includes all necessary cabling and adapters to easily share a printer between a PC and a Mac running a version of PowerPrint.

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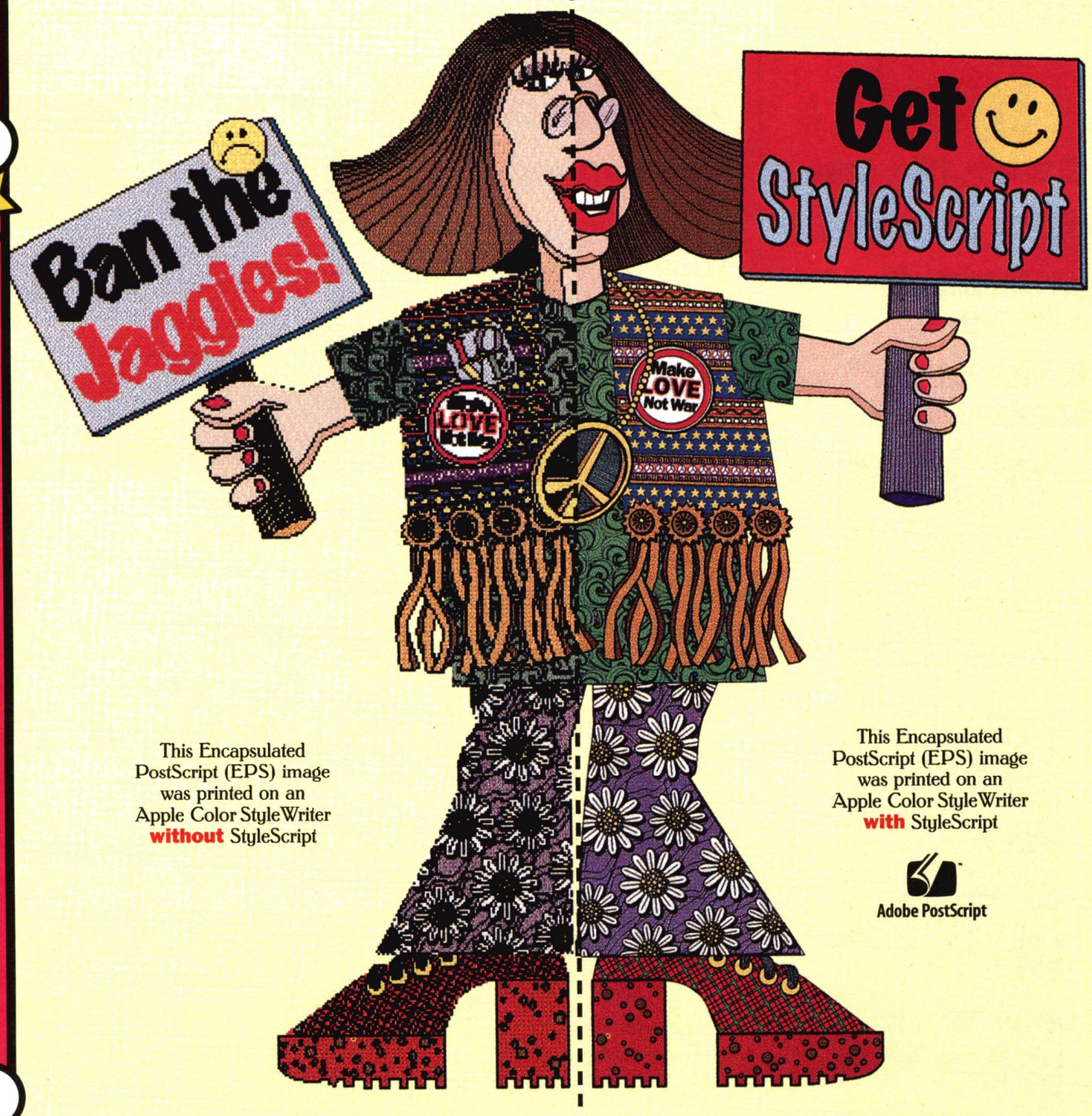
PostScript Solutions



This Encapsulated PostScript (EPS) image was printed on an Apple Color StyleWriter **without** StyleScript

This Encapsulated PostScript (EPS) image was printed on an Apple Color StyleWriter **with** StyleScript

Adobe PostScript

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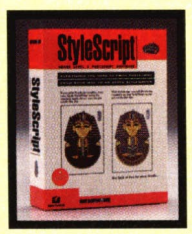

If you are sending PostScript graphics to an Apple StyleWriter printer, you need StyleScript to smooth out the jaggies. With StyleScript, you can turn an Apple StyleWriter into an affordable, sharp, high-quality PostScript printing machine. StyleScript is an amazing product that utilizes genuine Adobe PostScript Level 2 software, and works easily with your Apple StyleWriter. Combine the two and you get the ability to print crisp, clear images. StyleScript maximizes the output quality of your PostScript graphics to your printer's best resolution. You get the same result as if you used a PostScript printer – for less than $150.

The above images were created in Illustrator, exported as EPS files into PageMaker and printed on an Apple Color StyleWriter 2500.

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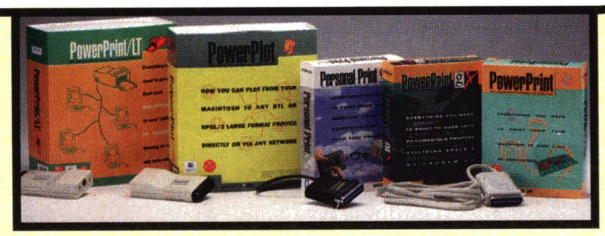

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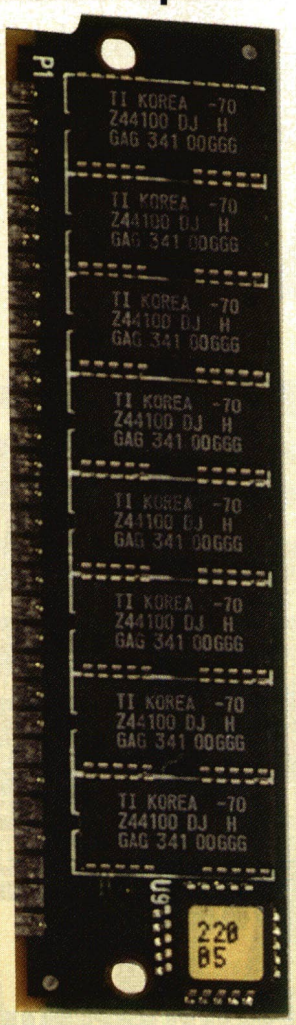

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IN BRIEF

CyberSound VS 1.0

InVision brings affordable MIDI synthesizer to Mac

Overall value ♦♦♦♦

Pop music's embrace of electronic synthesizers some 25 years ago was either a blessing or a curse, depending on who was turning the knobs. Some artists used these giant waveform-generating machines with taste to give their music unique sonic qualities, while others helped usher in the age of synthesizer bombast.

Although these analog elephants live on, modern products such as CyberSound VS let you slip a virtual truckload of gear out of your pocket and into a Macintosh, where 512 high-quality, 16-bit sounds await.

The $249 CyberSound VS from InVision Interactive Inc. breaks down into two interactive parts. The CyberSynth control panel synthesizer works like a MIDI sound module, providing access to the program's sound banks. And the CyberPlayer MIDI sequencer, which can record and play up to 16 tracks of sound, has several editing and signal-processing tools often found in much higher-priced MIDI sequencers.

Enough for everyone

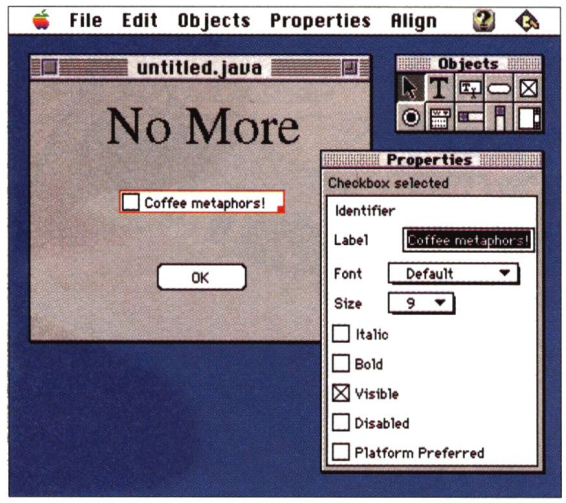
InVision targets its product at casual musicians, but pro musicians and multimedia developers should also take note: While the simplistic CyberPlayer MIDI sequencer may not be the ultimate choice for professional use, the CyberSynth sound module is packed with nine great-sounding, carefully engineered sound banks, including a General MIDI standard sound set optimized for Power Macs.

The program also contains seven other customized sound banks of exceptional quality. Among them are a nine-set Drum Bank, which includes General MIDI and GS Standard Drum Set mappings; a Piano Bank with 105 polyphonic keyboard programs, from grand piano to clavinets; an Orchestra Bank with 83 string, woodwind, brass and percussion programs; and a Pop Bank with numerous pop and rock instrument sounds.

InVision also includes its own CyberSynth Bank, featuring several rich, detailed sounds created with new physical modeling techniques that go beyond current analog synthesis and digital sampling technology.

The straightforward CyberSynth control panel lets you monitor and adjust several Mac parameters that can influence sound quality. You can adjust the amount of Sound Cache and CPU power used by CyberSynth, adjust the number of Voices available to maintain the highest sound quality possible, and adjust Headroom to avoid clipping and distortion.

See CyberSound, Page 36



Café Studio, part of Symantec's Café package, allows developers to create user interfaces through intuitive visual tools.

Java

From Page 32

Natural Intelligence's license with Apple to provide the default Java virtual machine for a future version of the Mac OS guarantees that the technology underlying Roaster will remain up-to-date.

Café's fast compiler and highly evolved environment make it a good choice for development, but as a package it stands out because of Café Studio's capability to quickly create user interfaces in Java. While Studio feels like a work in progress, it nonetheless shows foresight in predicting how developers will want to build interfaces for their Java applets. According to Symantec, this paradigm will continue in upcoming Visual Café products. Fortunately for current users of Symantec's C++ for Power Macintosh, Café is part of the standard subscription; no additional purchase is necessary.

Metrowerks' CodeWarrior is the most complete package at the moment. It lets you create executable applications as well as combine classes into .zip files. It is also the only package we tested with a shipping source-level debugger, although both Symantec and Natural Intelligence demonstrated source-level debugging at Apple's Worldwide Developers Conference in May.

The inclusion of Java documentation in Apple Guide form, as well as the familiarity of the environment for those already used to CodeWarrior, makes Metrowerks' Java tools a strong contender. Best of all, though, existing CodeWarrior Gold subscribers get the Java tools free as part of the subscription.

Java tools are still in their infancy, but today's Mac packages are already suitable for real work. It's likely that easy-to-use, graphically oriented products such as PowerProduction Software's WebBurst will take most of the market in the long run, but right now Java is a sandbox open only to serious programmers.

Metrowerks Inc. of Austin, Texas, can be reached at (512) 873-4700 or (800) 377-5416; fax (512) 873-4900; sales@metrowerks.com; http://www.metrowerks.com.

Natural Intelligence Inc. of Cambridge, Mass., can be reached at (617) 876-4876; fax (617) 492-7425; info@natural.com; http://www.natural.com.

Symantec Corp. of Cupertino, Calif., can be reached at (408) 253-9600 or (800) 441-7234; fax (408) 253-3968; http://www.symantec.com. □

DuoScan

From Page 31

Getting good scans out of the DuoScan is easy. The FotoLook software has been around for years and is used in all Agfa's scanner products, from the low-end StudioScan series to the Horizon line. The software allows you to manipulate the tonal characteristics of a scan with curves and settings for white and black points, apply unsharp masking, and descreen printed images.

While it's not as fluid as Nikon's ScanTouch software, FotoLook is still very good. Our main issue with FotoLook is the fixed preview window; we would like to be able to resize the preview area to take advantage of large-screen monitors.

With the DuoScan, we were able to get good scans from dark 35mm slides, which in the past was possible only with a slide scanner or a flatbed in the $10,000-and-up price range. The DuoScan's capability to capture a full 48-bit color image, while limited in use to only a few applications such as Adobe Photoshop, was also highly useful when dealing with troublesome originals.

Agfa claims that one of the advantages of the TwinPlate technology is increased productivity: While scanning on the reflective bed, you can prepare a group of transparencies to be scanned next.

This is especially true with FotoLook's batch mode. You can set up scans of any type, on either the flatbed or the transparency tray, with separate settings for each scan, and go off to do something else when you're ready to perform the final scans. The scanning speed of the DuoScan is slightly slower than other flatbeds in the midrange sector of the market, but it never felt slow in real-world tests.

Conclusions

The DuoScan won't replace drum scanners and high-end flatbeds, but for most publishing-related tasks it offers a significant price/performance breakthrough. The scanner's TwinPlate design — a departure from traditional flatbeds — adds real value, and Agfa has implemented it superbly. When you factor that with the 1,000-dpi resolution, high dynamic range, solid software and low price, it's obvious that Agfa has done a great job of delivering the goods. We're sure that Agfa's competition is looking for ways to answer the DuoScan with their own scanners, but right now Agfa owns the under-$10,000 market.

Agfa, a division of Bayer Corp., of Ridgefield Park, N.J., can be reached at (800) 685-4271; fax (508) 658-4193. □

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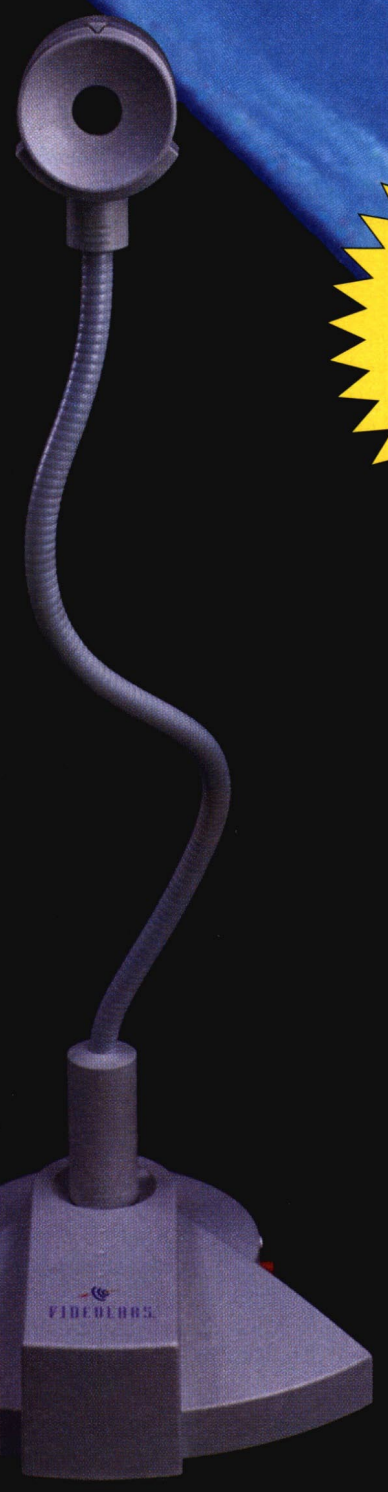

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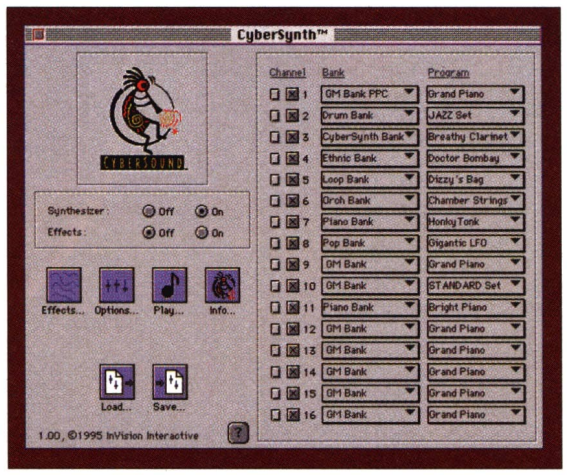
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The CyberSynth synthesizer, part of InVision's CyberSound VS, works like a MIDI sound module, providing access to the program's high-quality sound banks.

CyberSound

From Page 34

The control panel also allows you to alter Chorus and Reverb effects on selected programs, and the MIDI Setting Display lets you monitor and modify current MIDI channel settings.

You can fine-tune a program's performance in real time through the adjacent Info window — a nice feature because sound programs can be quite large and CPU-intensive. We experienced some clipping and dropouts when playing larger programs on a Power Mac 7200/90 with a Kurzweil K2000 keyboard controller, but being able to monitor the internal computer values helped reduce these problems. InVision claims that adding a Level 2 cache card will increase performance by 20 percent.

We also noticed a slight delay between pressing a key and hearing sound; InVision says it will correct this in Version 1.01, which is due this month. This upgrade will also include more sound banks and will make CyberSound VS Power Mac-only. (Version 1.0 can run on 680x0 Macs, but InVision doesn't recommend it.)

Although CyberSound VS legitimately advertises itself as a "pro-quality, software-only MIDI synth" don't be misled by the increasingly common euphemism of "no additional hardware required." Yes, sounds can be played on CyberSynth using the mouse and on-screen keyboard, but even amateur musicians will quickly tire of this method.

To maximize both the pleasure and utility of CyberSound VS — even in a low-key recording environment — a MIDI controller (such as a MIDI keyboard), a MIDI interface and a good-quality stereo monitoring system are essential.

CyberSound VS ships with OMS and FreeMIDI drivers, along with InVision's own MIDI Manager driver. This should make it easy for pros with more complex MIDI systems to tap into CyberSynth's vast sound library.

The other half

The CyberPlayer MIDI sequencer is a straightforward program that lets you record, overdub and play 16 tracks of sound from the internal CyberSynth sound banks or from an external MIDI source.

An easy-to-use interface simplifies the recording and overdubbing process. You can set tracks to record, play or mute; or access the Track window, which sequentially logs all MIDI events. Standard editing features let you manipulate selected sequences of MIDI data; in this fashion you can reassemble raw song data into finished arrangements.

Pull-down menus let you choose sound banks and programs for each track. When we ran CyberPlayer from an external hard drive we discovered a bug: The Track Banks appeared to load the CyberPlayer folder files instead of the CyberSynth sound banks, effectively locking us out of the latter. Reinstalling CyberSound VS entirely on the internal hard drive solved the problem. InVision acknowledged this minor but frustrating bug and said it was working on a fix.

Because CyberSound is fully MIDI-compatible, it responds to all MIDI volume commands. With CyberPlayer you can adjust Input and Playback levels by assigning track volumes to external MIDI controllers. While this setup lets you control monitor levels during recording, overdubbing and mixdown, the absence of a more intuitive mixer interface (such as the graphic mixer common to many keyboards) makes the recording process slower and less intuitive.

CyberPlayer offers other useful functions. Input Quantize synchronizes incoming notes to the nearest whole, half, quarter, eighth or sixteenth note, or to the nearest quarter, eighth or sixteenth note triplet. To keep a human feel, you can also select the amount of quantization.

Other good features include Transpose, which changes a song's pitch; Duration, which determines the length of individual notes; and Velocity, which sets how quickly a note reaches its peak volume.

Conclusions

InVision should be commended for bringing a good-sounding, affordable MIDI synthesizer and sequencer package to the Mac. While claims of total independence from additional hardware are a bit unrealistic for all but the most casual users, CyberSound VS does offer many features found in synthesizers and sequencers 10 times the cost.

Multimedia creators, composers and musicians will definitely want to listen to CyberSynth's sound banks for potential use with professional projects. And with the internal recording capabilities of the CyberPlayer MIDI sequencer, CyberSound VS is likely to turn on Macintosh music enthusiasts to the joys of multitrack recording.

InVision Interactive Inc. of Palo Alto, Calif., can be reached at (415) 812-7380 or (800) 468-5530; fax (415) 812-7386; http://www.cybersound.com. — *By Steven Roback*

SiteEdit, SiteCheck

Tools allow HTML checking, remote Web administration

Overall value:
SiteEdit 1.0.5 ◆◆◆
SiteCheck 1.0.3 ◆◆◆

Pacific Coast Software recently released a pair of tools geared toward simplifying remote Web site management. SiteEdit and SiteCheck are simple but limited products that get the job done.

SiteEdit

The $39.95 SiteEdit lets Webmasters edit remote Web pages through a Web browser interface, helping them avoid the tedium of using FTP to transfer files edited locally to the remote site. SiteEdit works through a CGI (Common Gateway Interface) program and a special HTML document that must be placed on the remote Mac or Microsoft Windows NT server. You access and edit pages via a forms-based interface that appears when you visit the remote CGI program with any forms-capable Web browser.

We found SiteEdit to be a great help, particularly for making minor corrections to tags and text. However, its editing capabilities are limited to making text-based corrections to the page's HTML source within a form; they sport only the most rudimentary functions, such as copying and pasting text between SiteEdit and other applications.

SiteCheck

The $79.95 SiteCheck routs a site's broken links via a friendly interface. When you enter a Web URL (uniform resource locator) in SiteCheck's dialog box, the program verifies all simple Web links on that Web page, but not FTP URLs nor image-map links. Check the Do Recursive Search check box, and SiteCheck confirms the validity of all pages within the original site that can be reached by following a chain of links from the original URL. It can also optionally "walk" CGIs, that is, check links on pages they generate.

SiteCheck presents its results in a scrolling window. You can view all links or only the bad links; either view can be exported as an HTML document. While you can't correct bad links directly within SiteCheck, SiteEdit works admirably in this vein. Pacific Coast has wisely decided to integrate the two packages in the next major upgrade, due this fall.

SiteCheck's limitations hamper its utility. It cannot check pages stored locally; they must be on a Web server. You cannot restrict SiteCheck to scan only a portion of a site, and although you can cancel a SiteCheck process at any time, we'd like to see Pause and Resume features added.

SiteCheck is useful for checking small- to medium-size sites, but because of its limited feature set, we cannot recommend it for large sites, particularly those with numerous links to slow external sites.

Pacific Coast Software of San Diego can be reached at (619) 675-1106; fax (619) 675-0372; info@pacific-coast.com; http://www.pacific-coast.com. — *By Tonya Engst*

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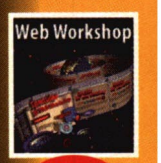

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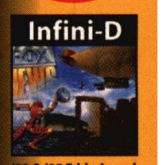

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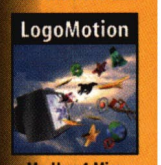

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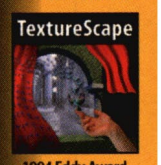

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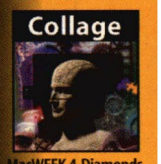

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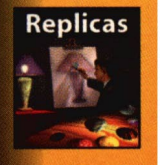

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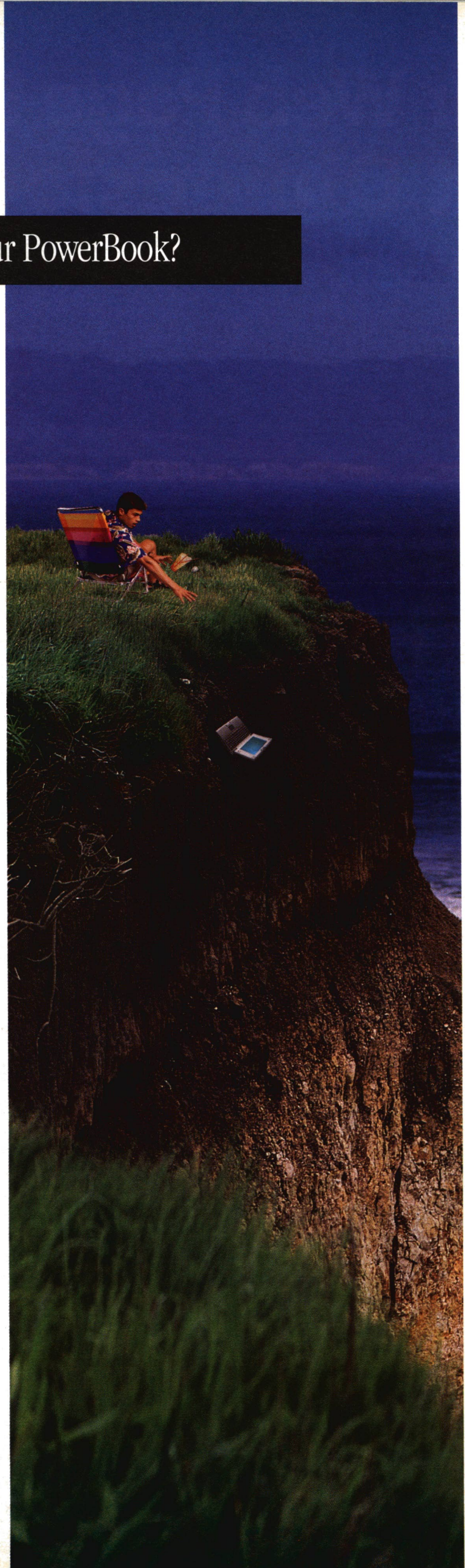

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SOUND IT OUT

To get more information on how Macromedia Inc.'s Deck II 2.5 works, see Reviews, 04.22.96, Page 24.

AUDIO TOOLS

Mechanical composition puts an orchestra in a Mac

By Eric Taub

The cut, copy and paste metaphor that has defined the Macintosh since its inception has won over the world's professional and amateur musicians, audio engineers and composers.

When Ed Kalnins, an orchestrator of motion-picture music, booked three hours of studio time to record a guitarist, he knew the session would have long periods of downtime. The constant pauses were necessary to allow the engineer to stop and rewind the tape to listen for a cue or to re-record a passage. In that scenario, three hours made sense. Yet, 30 minutes — not three hours — after the musician began his session, he was finished. The reason? Kalnins was creating music digitally, recording everything directly onto a hard drive.

"Now that I work digitally, I don't have to wait for tape to rewind, for the tape to scroll to a cut," Kalnins said. "I remove pops on the track, I add notes from a better performance to a poorer one, I remove notes when the music's too busy, and there's no wait."

Tape-based recording, mixing, editing and notation is declining in popularity as more digitally savvy professionals realize that the computer allows them to create previously unknown musical effects and sounds to produce seemingly flawless recordings and to finish all that work in a fraction of the time previously needed.

A wide variety of audio production software exists, including the high-end Pro Tools Software and Session, bundled with audio cards, from Digidesign Inc. of Palo Alto, Calif. Also available is a combination of MIDI and audio music recording software, such as Cubase 3.0 VST from Steinberg Soft- und Hardware GmbH of Hamburg, Germany. There's also Digital Performer 1.7 from Mark of the Unicorn Inc. of Cambridge, Mass.; Studio Vision Pro 3.0 from Opcode Systems Inc. of Palo Alto; and Logic Audio from Emagic Inc. of Nevada City, Calif.

"I can stretch the sound, change its pitch and manipulate its volume — all things I could never do ... with magnetic tape."

— Paul Berolzheimer, sound-effects editor

For MIDI-recording software tools there is Performer from Mark of the Unicorn, and audio recording and editing software such as Deck II 2.5 and SoundEdit 16 from Macromedia Inc. of San Francisco.

Skyrocketing tools

"Five years ago, digital audio/MIDI packages were pretty hard to find," said Bobby Summerfield, a composer of television promotions based in Northridge, Calif.

Tim Glasgow, a free-lance recording engineer in London, Ontario, said: "There's a real rivalry between producers of MIDI sequencing software. They're all pushing each other, and that's great. Right now it's Cubase VST that's ready to obliterate everyone, but their competitors are right behind them."

According to Barry Wittenstein, a New York-based songwriter, "Which software is best is subjective." It is bringing the technology to the masses that continues to enthrall even the most professional audio workers, Wittenstein said.

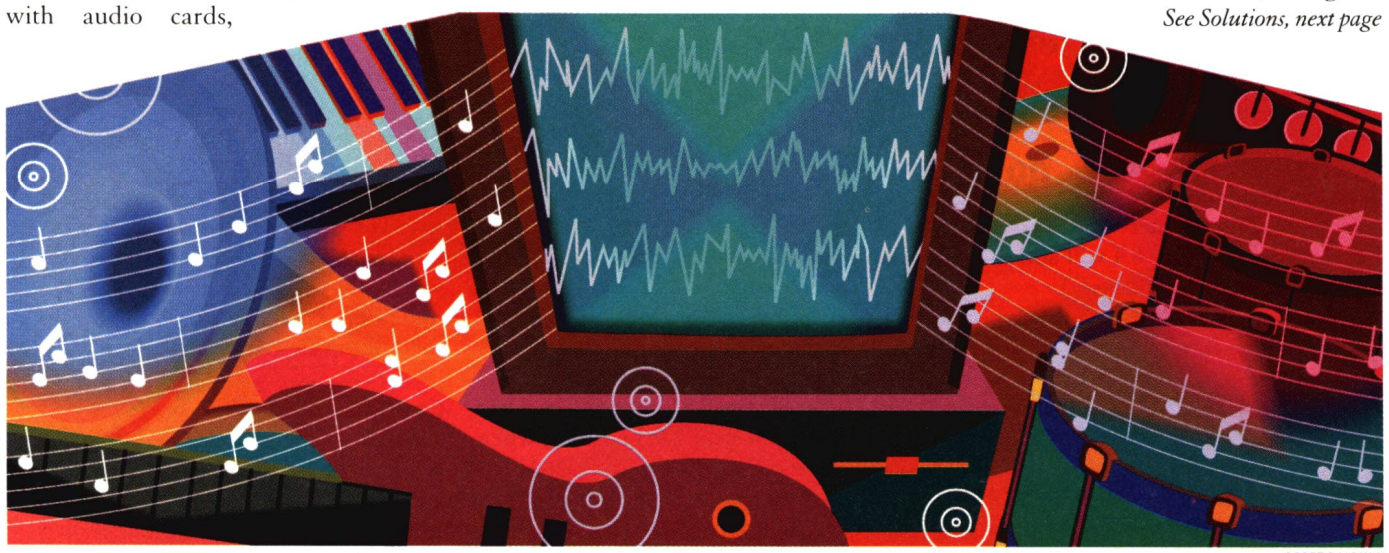
Whatever their level of expertise and financial success, he said, digital-audio tools have allowed people to create music and audio tracks that would have been too expensive, time consuming or impossible just a few years ago.

Paul Berolzheimer is a feature-film sound-effects designer and editor in Glendale, Calif., who has created sound effects for such pictures as "The Lion King," "Speed" and "Mulholland Falls." Working with a Macintosh IIx, a 68040 accelerator and Pro Tools software, Berolzheimer reported having no trouble synchronizing various effects.

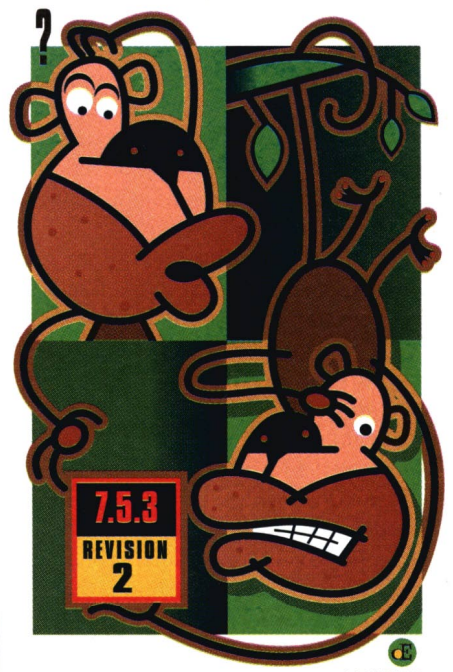
"With Pro Tools, you can see the wave form of the sound; you can see where each sound peaks, and easily line them up to match beginning and end points," he said.

"You can pick things out and try them quickly, then remove them if they don't work," Berolzheimer said. "I can line up a lion's roar with the sound of a car passing. I can stretch the sound, change its

See Solutions, next page



SCOTT BALDWIN



DAVE EMBER

MACINTOUCH

RIC FORD

System 7.5.3 Revision 2: An update to track

As I write this, Apple is publicly playing dumb about problems with System 7.5.3 while simultaneously sending fixes to certain people for testing under nondisclosure agreements. The fixes, to be packaged as System 7.5.3 Revision 2, should arrive this month.

One fix corrects an infrequent corruption problem with Apple's Dynamic Recompilation 680x0 Emulator on PowerPC-based models. (Connectix Corp.'s Speed Doubler, which replaces this emulator, also serves as a work-around.)

Another change fixes a quirk that can corrupt data on 1-Gbyte hard drives manufactured by IBM Corp., but only if someone manually *disables* write caching on the drive with a third-party disk utility. Note that this is exactly opposite the problem of *enabling* write caching with other drives (see 03.25.96, Page 39).

A bug that caused Type 8 crashes on PowerBooks and a bug that renders DOS floppies unusable on Intel-standard PCs after being used in a Mac were also fixed. The update also tackles a problem with parameter RAM that could prevent a Power Mac from starting up with the chosen start-up drive.

See MacInTouch, next page

SOLUTIONS

From previous page

pitch and manipulate its volume — all things I could never do working with magnetic tape."

All-in-one orchestra

Wittenstein started using Cubase software, but he said he couldn't scroll through various MIDI sounds directly on the computer. Later he switched to Opcode's Studio Vision Pro, but he said it left him "constantly e-mailing them for help," so he switched to Digital Performer.

"The program works for me," he said. "The manual is very easy to read and understand. If I didn't have this setup, I'd be doing far fewer demos, and they'd be a lot more expensive. I'd be hiring live musicians and a studio that could handle a complete drum set."

Summerfield said he believes that he could not do the work he is doing without computers and MIDI instruments. "Otherwise, I'd have 10 musicians, a conductor and a copyist to make the sounds that I'm creating by myself," he said.

Computers have been an essential part of Summerfield's trade for 12 years, he said. He started out using a Commodore 64, then an IBM 286 machine and, finally, seven years ago, a Mac.

Summerfield uses a Macintosh Centris 650 equipped with a Digidesign sound card and software that includes Cubase, Studio Vision and Digital Performer. His software redundancy is for the benefit of his clients, not himself.

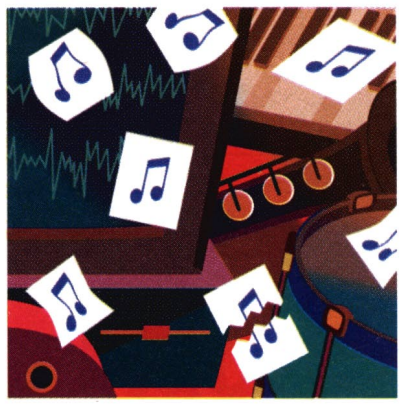
"I use Cubase most of the time; I use Digital Performer 5 percent of the time; and the only reason I use Studio Vision is if any of my clients have compatibility problems with my other programs," he said. "Using their software allows them to make changes to my work more easily."

Digitally equipped

Equipped with a Power Mac 8500, Joe Davis started a business recording local bands. While many audio professionals furnish their computers with third-party audio cards for the best output, Davis has, as a matter of economy, bypassed that approach. Instead he uses his computer's built-in audio board.

"For demos on CDs of local bands, the internal computer audio card is satisfactory," said Davis, owner of Marlton, N.J.-based By the Snow Studios. "Once you transfer the recording to an audio tape cassette, you lose a wide range of sound anyway." Davis uses Deck II software for audio recording, and Encore from Passport Designs Inc. of Foster City, Calif., for MIDI work. While he likes Deck's capability to record up to 32 tracks, he's disappointed that his computer monitor doesn't allow him to see more than eight tracks at once. "I'd need a 40-inch monitor to see them all," he said.

The software also allows him to mix directly on screen, but, like many professionals, he actually mixes his audio through an external board, using mechanical knobs. "Sitting there with a mouse, trying to move a screen representation of a fader is not very easy," he said. "Also, since I can't see all the faders at once, I have to scroll over to get to the others. I could automate this whole task, but who's got the time to set that up?"



"If I didn't have this setup, I'd be doing fewer demos and they'd be a lot more expensive."

For Glasgow, mixing digitally takes three times as long. "You can turn knobs much faster than pulling up menus with the mouse," he said.

Scott Stambler, an independent music editor in Los Angeles, agreed. "I want hand buttons," he said. "I don't want to use keyboard controls, and I don't want to use a mouse." Stambler has worked on such films as "When Harry Met Sally" and "The American President."

He uses Pro Tools, but he reports being unable to nudge his edits forward or backward by anything less than one frame. It does, however, let him eliminate unwanted audio interference in a fraction of the time it would take using traditional magnetic film.

"I can take a sustained string passage that previously, after waiting one day to get it transferred to mag, would have always wound up 'popping,'" Stambler said. "Then I'd have to get two pieces recorded and tell the mixer how to cross-fade to get rid of the noise. Now, I can do a cross-fade digitally. I used to try scraping the mag with a razor blade, but I'd hate to try that today with my time constraints."

Alternative sound

While professionals remain entranced by the capabilities of the newest audio software, there appears to be considerable dissatisfaction with technical support.

"Digidesign's software is great," said Cal Moore, owner of Immortal Productions in Canal Fulton, Ohio, which produces alternative rock and country CDs. "But when you call tech support, 50 percent of the time they're confused, and you know more than they do. You wait for half an hour to talk to someone and often they don't have a clue."

Summerfield said: "The people at Steinberg are very nice, but they don't have the answers. They have to call Germany to get the information, but I can't wait three days to hear from them. I also left a message with Emagic three to four weeks ago, and I never got a call back from them."

Songwriter Wittenstein advises users to go online. "People in the audio message boards are screaming their heads off about software and hardware incompatibilities," he said. "There's nothing smooth about MIDI. When it all works, it's shocking."

If there is a confluence of features and usability among competing audio packages, as many users seem to believe, then what is the best way to make a purchasing decision? With feature sets changing so rapidly, it may be unwise to expect any software to be satisfactory for long. With the complexity of many high-end programs, technical support is very important, Summerfield said.

"And don't overpurchase. Don't expect to be using this software in three years. If you're creating music for movies, make sure your software lets you lock your work to the picture," he said. "If you're using a guitar, you need software that works with MIDI and audio. Forget the bells and whistles; buy something that is stable and does what you need."

According to Glasgow, it doesn't really matter what software you buy, because they're all equally good. "I know that if I wait around, one company will come out with an upgrade that'll put them on top — at least for the next six months," he said. □

MACINTOUCH

From previous page

System 7.5.3 was supposed to simplify and consolidate changes to the Mac OS, but it already has become confusing. Before looking further at the unannounced revision, let's review the existing parts and packaging:

- System 7.5.3 is a version of the Mac OS pre-installed at the factory for a particular Macintosh model, but this System 7.5.3 is not current by itself. The factory drops newer components on the hard disk separately.

The Important Software Updates folder, for example, includes Apple Guide 2.0.2 and Drive Setup 1.0.4, both tagged System SW 7.5.3 Updates 1.0 in Get Info.

- No stand-alone version of System 7.5.3 is available yet. We don't know what the version number or official name of this retail package will be.
- System 7.5 Update 2.0 is an add-on for System 7.5, System 7.5.1 and System 7.5.2. It updates them to a level one step higher than System 7.5.3, with the newer Apple Guide and Drive Setup, plus fixes for System 7.5.3's SCSI Manager, Standard File routines and more. Tech Note 1017 documents the differences between System 7.5.3 and System 7.5 Update 2.0.
- Peripherals updates bring the Mac OS beyond the System 7.5 Update 2.0 level. These already include AppleVision Software Fix for System 7.5, Update 2.0 and AppleShare Workstation 3.6.2 (see 05.13.96, Page 39), plus Apple CD-ROM Software 5.1.7 and DOS Compatibility Software 1.5. LaserWriter 8.3.4 and LaserWriter 8.4 will add to this collection (see 06.03.96, Page 37).

Examining enabler files in the system folder helps pin down Mac OS.

The enabler exchange

Choosing About This Macintosh in the Finder offers clues about the current Mac OS configuration, but it also can be confusing. Both System 7.5.3 and System 7.5 Update 2.0 are identified as System 7.5.3. There is a second line — "System 7.5 Update 2.0" — if the operating system was built with System 7.5.2 rather than preinstalled at the factory.

Examining the System folder for enabler files provides a clearer picture of the configuration. The factory version of System 7.5.3 may come with a System 7.5.3 enabler file. System 7.5 Update 2.0 lacks this enabler and installs either one, or both, of two alternative enablers: System 7.5 Update is its enabler for Macintosh models capable of running System 7.5 or 7.5.1, and System 7.5.2 Update is its enabler for Mac models capable of running System 7.5.2. (A "universal" System 7.5.2 configuration includes both.)

System 7.5.3 Revision 2 patches the System 7.5.3 or System 7.5 Update 2.0 enablers and creates a System 7.5.3 enabler, when necessary in certain configurations. About This Macintosh will then read System 7.5.3 with a second line of "Updated to Revision 2." The revision consists only of patches for existing System 7.5.3 (and System 7.5 Update 2.0) configurations. It is not a complete operating system, and it will not update pre-7.5.3 Mac OS versions.

Cleanup

Some corrections to previous columns are in order:

- The Power Mac 5400 actually has two DIMM slots, not just one (see 05.06.96, Page 43).
- Norton Disk Editor cannot overwrite driver partitions on an IDE (Integrated Drive Electronics) disk (see 05.27.96, Page 29), but an Apple programmers utility named Sedit reportedly can.
- SupraExpress 288 external modems, which may drain too much power for some PowerBooks, are specifically labeled for desktop use (see 02.26.96, Page 49). □

Comments on MacInTouch are welcome at (508) 897-2621. Please address e-mail to ricford@macintouch.com on the Internet or 72511,44 on CompuServe. The MacInTouch home page is at http://www.macintouch.com/.

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APS Q 2.0 Quantum Atlas XP32150	**2050MB** 7200 rpm	Power Matched for Power PC MacUser ZD LABS ★★★★	699.95	799.95
APS ST 2.0 Seagate ST 32550N	**2047MB** 7200 rpm		749.95	849.95
APS MS 4.0 Micropolis 3243	**4064MB** 7200 rpm	Power Matched for Power PC MacUser ZD LABS ★★★★	899.95	999.95
APS Q 4.0 Quantum Atlas XP34300	**4101MB** 7200 rpm	Power Matched for Power PC MacUser ZD LABS ★★★★½	899.95	NEW LOW PRICE 999.95
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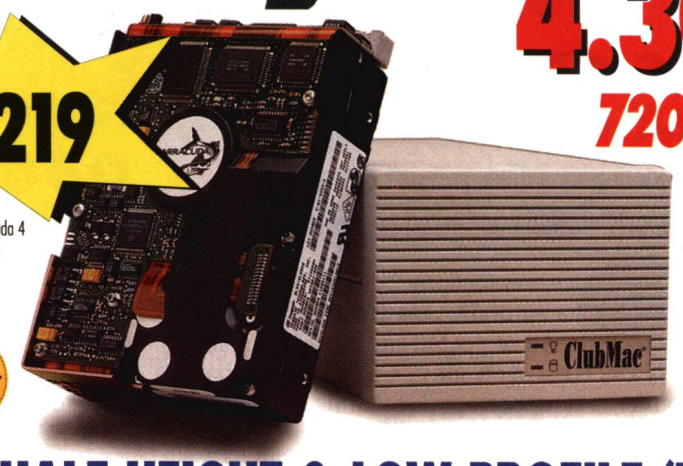

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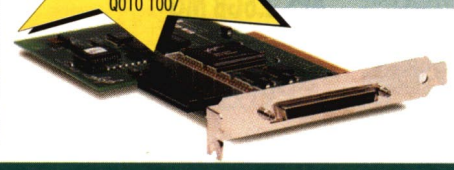

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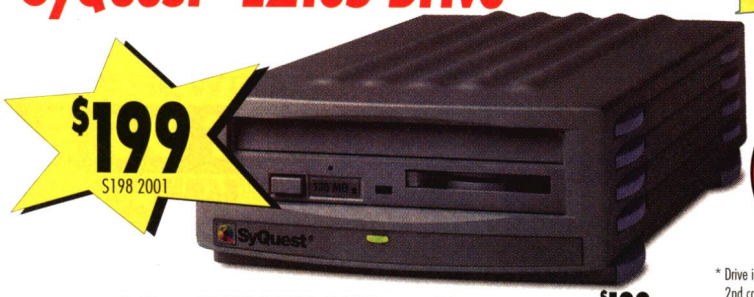

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S198 1013	105MB	$35ea	$34.50ea	$34ea
S198 1014	270MB	$57ea	$56ea	$55ea
S198 2010	EZ135MB	$19ea	$18.50ea	$18ea

Buy this Stuff... Get this stuff FREE

Zip 10-Pack + Zip Drive = Carrying Case + 2 Zip Caddys

$30 Value!

Free Stuff Offer ends September 15, 1996

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Corporate/Education Sales	M - F 5am - 5pm PST	(800) 258-2621
Customer Service	M - F 7am - 5pm PST	(800) 551-6398
Technical Support	M - F 7am - 5pm PST	(800) 854-6227
24-Hour Fax		(714) 768-9354

- ClubMac hard drives include all cables, cords, leds, and brackets necessary for use with the Macintosh you specify. ClubMac formats all hard drives and installs Apple System 7.1 software, Charismac Anubis Driver, and PowerMerge LE.
- External drives include a Double Shielded, twisted pair 25-50 SCSI cable.
- ClubMac honors all original equipment manufacturers warranties. ClubMac will repair or replace drives at it's discretion. Drives returned within first 30 days of purchase are replaced with a new unit.
- All ClubMac hard drives include a 30 day money back guarantee. Your risk is the cost of shipping.

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Source Code 65246

ClubMac®

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7 Hammond, Irvine CA 92718

CLUBMAC TAPE BACKUP

ClubMac®

2 Year Manufacturer's Warranty

Backed by ClubMac's 30 DAY Money Back Guarantee

Tape Back-Up Drives

C104 0900	**ClubMac 2-4GB SCSI QIC MiniCartridge Drive** (Cartridge not included)	$489
C104 1300	**ClubMac 2.0GB ThunderDAT Drive**	$749
C104 1301	**ClubMac 4-8GB DDS-2 DAT Drive**	$829
C104 1200	**ClubMac 4-8GB DDS-2 SuperDAT Drive**	$1059
C104 1302	**ClubMac 4-8GB Performance DAT Drive**	$1079
C104 0200	**ClubMac 40GB DLT Subsystem DLT 4000**	$4569
S100 1043	**Sony QW3080XLF QIC/WIDE 2-4GB Cartridge**	$29
V010 1018	**Verbatim 90M 4mm DAT Cartridge 2-4GB**	$9
S104 1008	**Sony 120M 4mm DAT Cartridge 4-8GB**	$29
Q034 1022	**1/2 inch media for DLT 4000**	$99

DDS-2 DAT Drive

NEW LOW PRICE

$829
C104 1301

Mac OS COMPATIBLE

Includes One Free DAT Tape

OPTIMA TECHNOLOGY **DeskTape**

- Copy your data to a mounted DAT using the Finder
- Interchange your data with any DAT drive
- Store & backup your data incrementally.

$99*

0029 1002

* with the purchase of a Tape Drive

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GENESIS SYSTEMS

DAYSTAR DIGITAL

Genesis MP528

Multi-Processing power with TWO 150MHz PowerPC processors

$5995* D042 1012

- Six PCI expansion slots
- 4X CD-ROM Drive, ADB Mouse, and Apple floppy drive
- Ethernet, 10Base-T & AAUI connector
- 512k Cache
- Multi-processor Plug-ins for: Adobe Photoshop, After Effects, Strata StudioPro Blitz & Kodak KCMS/Photo CD/Quick-time

NEW PRODUCT

150MHz PowerPC

*Monitor & keyboard not included.

MONITORS

NEC 14" C400 Monitor

NEW PRODUCT

$299 N026 1029

- 14" AntiStatic, Non-glare CRT
- .28mm dot pitch
- Max Resolution: 832x624

1 Year Manufacturer's Warranty

N026 1029 **14" C400 Monitor** $299
13.2" Viewable Image size

N026 1033 **15" C500 Monitor** $399
13.8 Viewable Image Size

N026 1031 **15" MultiSync XV15+** $469
13.8 Viewable Image Size

N026 1036 **NEC M500 15"** NEW PRODUCT $529
Chromaclear Monitor-13.8 Viewable Image Size

17" MultiSync XV17+

$799 BEST BUY

N026 1032

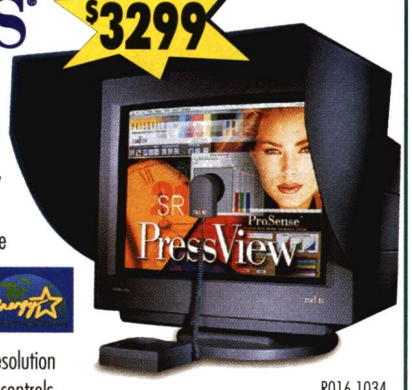
FEATURES

- 17" Flat Square Technology CRT
- 15.6" Viewable Image Size
- MAC Resolution up 1024 x 768 NI
- 0.28 mm dot pitch
- On-Screen Manager

N026 1032 **17" MultiSync XV17+** $799
N026 1007 **17" NEC XE17** $999
N026 1009 **17" NEC XP17** $1049
N026 1010 **21" MultiSync XE21** $1699
19.8 Viewable Image Size

radius PressView™ 21SR Display

$3299



Quality, High Resolution Display for Creative Professionals

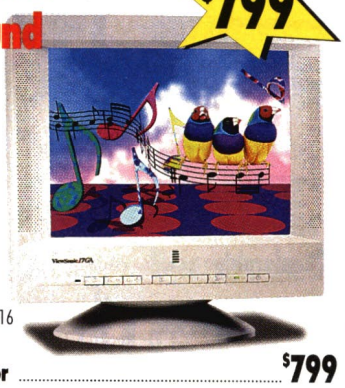
- 21" DiamondTron Color Tube w/aperture grill
- .30mm Dot Pitch
- Energy Star Compliant
- Capable of 1600 x 1200 resolution
- On Screen display of digital controls

R016 1034

R016 1034 **PressView 21SR Display** $3299

ViewSonic® 17GA PerfectSound Multimedia Monitor

$799



FEATURES

- HiFi Speakers built in
- 17" (15.7" Viewable Image Size)
- Max Res: 1280 x 1024
- PC and Mac compatible

BUILT-IN STEREO SPEAKERS

V056 1016

V056 1016 **ViewSonic 17GA Monitor** $799
V056 1020 **ViewSonic PT770 Monitor** $889

SONY Multiscan 17SFII

$915

FEATURES

- 16.0" Viewable image size
- .25 mm Aperture Grille Pitch
- Max Mac Resolution: 1024 x 768 ™ 75hz
- On screen display of screen controls
- Macintosh Adapter included
- 3 Year Warranty parts and 2 Year CRT

S106 1018 **Sony Multiscan 17SFII** $915
S106 1017 **Sony Multiscan 15SFII** $495

VIDEO CARDS

radius Thunder 30 PCI Cards

- 30-bit color with built-in photoshop Acceleration
- Real-time CMYK-to-RGB display
- On-the-fly resolution and bit-depth switching

$799 R013 1070

R013 1070 **Thunder 30/1152** PCI Card $799
Resolution up to 1152 x 870

R013 1071 **Thunder 30/1600** PCI Card $999
Resolution up to 1600 x 1200

Radius PrecisionColor 8/1600

$349 R013 1069

PrecisionColor 8/1600 is the cost-effective way to get super productivity on your Power Macintosh with PCI. It delivers high-speed QuickDraw performance for fast color display plus Super Resolution (1600x1200) that lets you see more of your work, more clearly.

R013 1069 **PrecisionColor 8/1600** 2MB VRAM $349
R013 1082 **PrecisionColor 24/1600** 4MB VRAM $499

$289.99 NEW LOW PRICE

Designed for Macintosh computers with PCI

A143 1010

ATI XCLAIM GA

ATI's renowned *mach64* graphics acceleration chip gives the XCLAIM GA its exceptional abilities. It features 2MB or 4MB of VRAM,& displays up to 16.7 million accelerated colors at 1152x870.

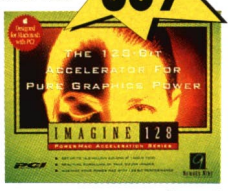
A143 1010 **ATI XCLAIM GA** 2MB PCI video card $289.99
A143 1009 **ATI XCLAIM GA** 4MB PCI video card $439.99

Number Nine Imagine 128

- 128-bit graphics engine
- 128-bit internal data path
- 128-bit memory bus
- Exclusive WideBus™ design means drawing pathways are a full 128-bits wide from processor to high speed VRAM

Designed for Macintosh computers with PCI

$689 N080 1003



N080 1002 **Imagine 128** 8MB Accelerator $1169
N080 1003 **Imagine 128** 4MB Accelerator $689

ACCELERATORS

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66MHz Turbo 601

3 Year Warranty 30 DAY Money Back Guarantee

Mac IIci, IIsi, IIvx, Performa 600

NEW LOW PRICE

$499 D040 1039

Runs your current software up to twice as fast, and runs PowerPC applications 7 to 11 times faster.

100MHz PowerPro 601

Quadra and Centris (610, 650, 700, 800, 900, and 950 series)

$1199 D040 1043

- Transforms your Mac into a top of the line PowerPC workstation
- Works with your current memory
- 64-bit data path increases performance
- Requires System 7.5

D040 1018 **40/Mhz Turbo 040** with 128K cache $599
D040 1043 **100Mhz PowerPro 601** with 1MB cache $1199
D040 1048 **100Mhz Turbo 601** $1139

MicroMac Technology Carrera040

NEW PRODUCT

MAC IIci, IIisi, IIcx, or IIx

$599

Just plug in the Carrera040 accelerator and instantly get blazing performance from your existing Mac

M264 1003 **40/80Mhz Carrera 040** with FPU $599

DIGITAL VIDEO

radius VideoVision Studio 2.5.1

$2399 R013 1018

Broadcast-Quality Video
VideoVision studio can deliver broadcastable quality video output in NTSC and PAL timing.

16-bit Audio
VideoVision Studio can now simultaneously capture video with 16-bit, 44.1 KHz stereo sound using the on-board audio of the Power Macintosh.

R013 1018 **VideoVision Studio 2.5.1** $2399

TRUEVISION Targa 1000 Digital Video Editing

Transform Your Desktop Computer into a Powerful Digital Video Editing System. ...Easily and Affordably!

$2699 T043 1003

Designed for Macintosh computers with PCI

T043 1003 **Targa 1000** (PCI Power Macintosh) $2699
T043 1001 **Targa 2000** (PCI Power Macintosh) $2995*
(* as low as $2995 w/qualified trade-in)

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SPECIAL

16MB 4x32 SIMM

NEW LOW PRICE

$285

M101 1054	**8MB 72 Pin Simm**	$145
M101 1072	**16MB 72 Pin Simm**	$285
M101 1081	**8MB Dimm**	$139
M101 1082	**16MB Dimm**	$275

ALL MEMORY AVAILABLE! CALL FOR BEST PRICE.

SCANNERS

Reli 4830 Mac/TE Color Scanner

R060 1004 **Reli4830 MAC/TE Color Scanner** $899

R060 1016 **Relisys Scorpio Color Scanner** 300 x 1200 dpi $419

R060 1017 **Relisys Taurus Color Scanner** 600 x 1200 dpi $699

UMAX Powerlook II

The Magic of Color

FEATURES
- 36-bit color scanning
- 600 x 1200 dpi
- 3.3 Dynamic Range
- Includes Transparency Adapter
- Package includes: Adobe Photoshop, KAI's PowerTools SE, PowerPhotos CD, WordLinx OCR, Pixar Typestry, & Pixar 128CD

U010 1052

U010 1052 **PowerLook II** 36-bit color scanning, 600 x 1200 dpi $2495

U010 1055 **Vista-S12 LE** $799

VISIONEER PaperPort Vx

FEATURES
- 6 second typical scan time
- 400 dpi resolution
- 256 Gray-scale imaging
- Scan Documents up to 30" long
- Includes OmniPage Lite, CardScan SE, PictureWorks Copier

V029 1008 **PaperPort Vx for Macintosh** $295

EPSON ES1200C Pro

E045 1003

FEATURES
- 600 dpi optical resolution,
- 30-bit color scanning
- Pro Package includes: Adobe Photoshop, Scantastic, KAI's PowerTools, SCSI cable

E045 1003 **Epson ES1200C Pro-MAC Color Scanner** Full Package $1179

E045 1007 **Epson ES1200C LE-MAC Color Scanner** w/Scantastic $949

E045 1013 **Epson ES1000C LE-MAC Color Scanner** $735

Nikon ELECTRONIC IMAGING COOLSCAN II

- Single-pass, 2700 dpi, 24-bit, 35mm Desktop Film Scanner
- 20 second pre-scan, 80-second final scan for 2592 x 3888 pixels
- Cool LED illumination for long life and low noise
- Intelligent hardware autocalibration, autofocus, autoexposure and autocolor balance
- Nikon Scan driver software ensures ease of use
- Adobe Photoshop plug-in
- SCSI-2 interface

N045 1008 **Coolscan II** $1199

MICROTEK ScanMaker III

Better Images Through Innovation.

FEATURES
- 600 dpi & 36-bit color scanning
- Includes Transparency Adapter
- Single pass scanning
- DCR (Dynamic Color Rendition) calibration/correction system
- Apple ColorSync compatible
- Package includes Adobe Photoshop

M150 1006 **Microtek ScanMaker III** $1989

AGFA Arcus II

FEATURES
- 600 dpi & 36-bit color scanning
- 3.0 Dynamic Range
- Includes Transparency Module
- Package includes:
  - Adobe Photoshop
  - Agfa FotoLook Scanner driver software
  - Agfa FotoTune Color Management software

A055 1001 **AGFA Arcus II** $1995

A055 1011 **AGFA StudioScan IIsi** $699

PRINTERS

EPSON Stylus Color Pro

FEATURES
- 720 x 720 dpi photo quality on plain paper
- PostScript upgradeable
- True black laser text
- Pantone matching
- Text print speed up to 3ppm, color 1ppm

E047 1019

E047 1019 **Epson Stylus Color Pro** $499

E047 1018 **Epson Stylus Color II** $269*

* After $30 Mail-in Rebate

Epson Stylus Color Pro XL

FEATURES
- Prints up to 12.5" x 18" full bleed Photoquality color
- 720 x 720 dpi photo quality with I technology
- Optional Adobe PostScript with Pantone Color Calibration

E047 1022

E047 1022 **Epson Stylus Color Pro XL** $1799

ART PADS

WACOM Art Z II 6" x 8" ArtPad

Don't buy a tablet that uses batteries...get a WACOM

W010 1028 **ArtZ II 6x8** $298

HEWLETT PACKARD HP LaserJet 5MP

FEATURES
- 600 x 600 dpi laser printing with HP Resolution Enhancement technology
- 120 levels of grey
- 6 ppm print speed
- 3MB RAM standard, expandable up to 35 MB w/Adobe Memory booster
- Adobe PostScript level 2 with 35 scale typefaces

H047 1030 **HP LaserJet 5MP Printer** $1045

HP DeskJet 855Cxi Printer

Features
- *COLOR PRINTER*
- Dual I/O for PC or Macintosh connection
- Black print speed up to 7ppm
- Color print speed up to 3ppm
- Handles plain and special papers, transparency film, and envelopes

H047 1065 **HP DeskJet 855Cxi InkJet Printer** $499

MODEMS

GLOBAL VILLAGE COMMUNICATION TelePort Platinum Fax/Modem

G050 1016

G050 1016 **TelePort Platinum** 28.8 data, 14.4 S/R, GlobalFax, GlobalFax OCR $199

G050 1019 **PowerPort Platinum Pro** $499
Combo 10base-T Ethernet, 28.8 data, 14.4 S/R, Fax, Type II PC Card

US Robotics 28.8 Sportster

The Intelligent Choice in Data Communications

FEATURES
- 28.8 V.34 and 33.6 kbps
- V.32 bis at 14.4 kbps
- V.42/mnp 2-4 error control
- Macverter Fax and Data Software
- CD-ROM of Internet Access Software
- Discover the World Wide Web with your Sportster Guidebook

U020 1021

U020 1021 **US Robotics 28.8 Sportster for Mac** $195

U020 1025 **US Robotics Sportster 28.8 w/voice** $259

BEST DATA

Merging Multmedia & Communications

Count on Best Data Modems for speed and affordability.

B020 1001

Smart One 2834FLXMAC Data/Fax Modem

B020 1001 **Best Data 2834FLXMAC** 28,8 v.34 External Fax/Modem $138

B020 1003 **Best Data 2834VLXMAC** 28,8 v.34 Ext. Fax/Modem w/Voicemail $169

Supra 28.8 Ext V.34

Supra Corporation

FEATURES
- V.34 and Flash ROM technology
- Includes caller ID, Silent Answer Fax and Voice Line Sharing
- FAXcilitate fax software, MicroPhone LT data software and CompuServe Information Manager software
- 28.8 kbps data speed with maximum throughput of 115, 200 bps, 144.4 send/receive fax
- V.42bis data compression MNP 2- & 10 error correction

S140 1007 **Supra SupraFax Modem 28.8 Ext V.34** $195

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24-Hour Fax		(714) 768-9354

WARRANTIES: All items manufactured by ClubMac are returned to ClubMac for warranty repair. All other items carry manufacturer's warranty. MONEY BACK GUARANTEE: All products manufactured by ClubMac carry a 30 day money back guarantee. ClubMac extends all other manufacturers' return policies to its customers. Non-ClubMac products carry 30 day money back guarantee when specified. RETURNS: Call for RMA number! Any product that is returned WITHOUT an RMA number will be refused. ALL PRODUCT INFORMATION AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

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- Sun Microsystems
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- IBM RS 6000

All drives are setup and tested for your specific platform.

AV SPEED • PRODIRECT PRICES • 90 DAY PERFORMANCE GUARANTEE!

- INDUSTRY LEADING IBM PATENTED MR HEAD TECHNOLOGY PRODUCES THE BEST TRANSFER RATES AVAILABLE TODAY!
- IDEAL FOR YOUR MOST INTENSE AV OR DTP NEEDS...AN IDEAL SCRATCH DISK
- 1,000,000 HOURS MEAN TIME BETWEEN FAILURE , 5 YEAR WARRANTY, 1 YEAR ADVANCE EXCHANGE

2.2 GB ULTRA
- 8 ms Seek
- 7200 RPM
- 512K Buffer
- 5 YearWarranty
- MR Head Technology

All drives come preformatted with FWB for Maximum performance in AV and DTP environments.
$525 INTERNAL **$585** EXTERNAL

4.2 GB ULTRA
- 8 ms Seek
- 7200 RPM
- 512K Buffer
- 5 YearWarranty
- MR Head Technology

All drives come preformatted with FWB for Maximum performance in AV and DTP environments.
$895 INTERNAL **$955** EXTERNAL

540 MB IBM DESKSTAR
- 9 ms Seek
- 5400 RPM
- 128K Buffer
- 5 Year Warranty

$155 INTERNAL **$215** EXTERNAL

1080 MB IBM STARFIRE
- 8 ms Seek
- 7200 RPM
- 512K Buffer
- 5 Year Warranty

$279 INTERNAL **$339** EXTERNAL

Kingston TECHNOLOGY CORPORATION

Kingston memory now availble at ProDirect for ***ALL*** types of systems. Always call for the most competitive prices.

Quantum

420 MB TRAIL BLAZER			$149	$209
11 ms Seek	4500 RPM	128K Buffer	3 Year Warranty	
535 MB Performance !			175	235
9 ms Seek	5400 RPM	512K Buffer	5 Year Warranty	
850 MB Value!			189	249
11 ms Seek	5400 RPM	128K Buffer	3 Year Warranty	
1080 MB Fireball			255	315
11 ms Seek	5400 RPM	128K Buffer	3 Year Warranty	
1280 MB Fireball II			265	325
11 ms Seek	5400 RPM	128K Buffer	5 Year Warranty	
2.2 GB Saturn			520	585
8.5ms Seek	5400 RPM	1024K Buffer	5 Year Warranty	
2.0 GB Atlas New Low Price!			675	735
8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
4.3 GB Atlas			925	985
8ms Seek	7200 RPM	2048K Buffer	5 Year Warranty	

Fast & Wide SCSI AV Drives

2.0 GB ATLAS		739	799
8ms Seek	7200 RPM 1024K Buffer	5 Year Warranty	
4.2 GB ATLAS		995	1055
8ms Seek	7200 RPM 1024K Buffer	5 Year Warranty	

CONNER

1060 MB Quiet & Reliable			$265	$325
9 ms Seek	5400 RPM	512 KBuffer	5 Year Warranty	
2.1 GB Fast AV Performance!			695	755
8 ms Seek	7200 RPM	512K Buffer	5Year Warranty	
2.1 GB Fast & Wide -AV Performance			825	925
8 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
4.2 GB Fast AV Performance!			975	1035
8 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
4.2 GB Fast & Wide -AV Performance			1075	1175
8 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	

MICROPOLIS

GOLD Series AV Drives Recommended most for AV work

2.1 GB • Also Available in Fast & Wide SCSI 2			589	649
Fast SCSI 2	8.5 ms Seek	7200 RPM 512K Buffer	5 Year Warranty	
4.3 GB • Also Available in Fast & Wide SCSI 2			985	1045
Fast SCSI 2	8.5 ms Seek	7200 RPM 512K Buffer	5 Year Warranty	
9.0 GB • Also Available in Fast & Wide SCSI 2			1895	1995
Fast SCSI 2	11ms Seek	5400 RPM 512K Buffer	5 Year Warranty	

SyQuest TECHNOLOGY

DRIVES			CARTRIDGES	
Capacity	**Model**	**External**	**Capacity**	**Price**
88 MB	SQ5110C	$255	44 MB	$40
135MB	SQEZ135	195	88 MB	44
200 MB	SQ5200	325	135 MB	19
270 MB	SQ3270	339	200 MB	69
			270 MB	56

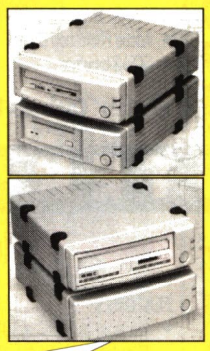
MW ★★★★ EDITORS' CHOICE

PDC2400
- 8 ms Seek • 7200 RPM
- 512K Buffer • 5 YearWarranty

$725 Internal $785 External
Conner 21075 Mechanism

"Like an eye catching sports car, this 2.4 GB looks and goes fast"

Stackable • Active Termination



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535 MB Performance !			$175	235
9 ms Seek	5400 RPM	512K Buffer	5 Year Warranty	
Quantum 1280 MB Fireball II			$265	$355
11 ms Seek	5400 RPM	128K Buffer	5 Year Warranty	
PDI 2.2GB Ultra XP			$735	$845
8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
Seagate 4.2GB Barracuda 4			$1025	$1085
8 ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
Seagate 9.0 GB Elite			$1965	$2065
11 ms Seek	5400 RPM	1024KBuffer	5 Year Warranty	

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Fast/Wide 16BIT SCSI 2 accelerator card for Apple's Nubus based computers. Supports fast/wide SCSI 2 (16 Bit) transfer rates up to 20MB/sec. and fast SCSI 2 (8 Bit) transfer rates up to 10 MB/sec.

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Atto Express PCI $345
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Atto Silicon Express 2 $485
SCSI 1&2 supports transfer rates up to 10.0 MB/sec., multiple block sizes, parallel processing capability.Ideal for graphic design, multimedia applications.

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REMUS Disk Array RaidLevel 0 - 5 $Call

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9 ms Seek	5400 RPM	512 KBuffer	5 Year Warranty	
2.5 GB Barracuda 2			710	765
8 ms Seek	7200 RPM	1024K Buffer	5Year Warranty	
4.3 GB Barracuda 4 New Price!			1165	1205
8 ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
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8 ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
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Capacity	Model	Media	Int.	Ext.
2.0 GB	35470	4mm	$925	$985
3-5 GB	35480	4mm	995	1055
4-8 GB	1533A	4mm	1235	1295
24-48 GB	1553A		3195	3295

Auto Tape Loader

Exabyte

Capacity	Model	Media	Int.	Ext.
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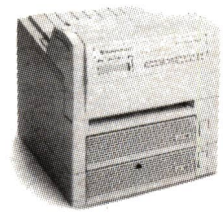

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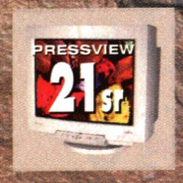

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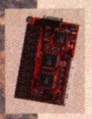

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Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
Radius FPD Card	Mac Plus	Mono	–	–	–
Radius Pivot Card	SE/30	256	–	–	–
Xceed Color 30hr	SE/30	256	256	256	256
Lapis Color 16	SE/30	Thousands	Thousands	256	256
Lapis Color 24	SE/30	Millions	Millions	256	256
Radius Direct Color/gx	IIsi	Millions	–	–	–
SuperMac Spectrum 8	IIsi	256	256	256	256
SuperMac Spectrum 8.24	IIsi	Millions	256	256	256

Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
Radius FPD Card	Mac SE	Mono	–	–	–
SuperMac Superview	Mac SE	–	–	Mono	–
Radius TPD Interface	Mac SE	–	–	–	Mono
RasterOps 8/LC	LC/PDS	–	–	256	–
SuperMac Spectrum 8	LC/PDS	256	256	256	256
Lapis Color 16 for LC	LC/PDS	Thousands	Thousands	256	256
Micro Conversions 1724	LC/PDS	Millions	Millions	256	256
Lapis Color 24 for LC	LC/PDS	Millions	Millions	256	256

Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
Double Color SX	Nubus	256	256	16	–
RasterOps 708+	Nubus	256	–	256	–
RasterOps 24L	Nubus	Millions	–	–	–
RasterOps 8/LC	Nubus	–	–	256	–
SuperMac Spectrum 8	Nubus	256	256	256	–
Double Color LX	Nubus	256	256	256	256
Radius Direct Color 24	Nubus	–	–	–	Millions
E-machines Futura MX	Nubus	Millions	Millions	Millions	–

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Hitachi 2.5" IDE***	1.0GIG		14MS	5400	$ 425	
Conner CFP1080	1.2GIG	LP	11MS	5400	$ 295	$ 365
Seagate ST51080N ***	1.2GIG	LP	12.5MS	5400	$ 290	$ 360
Seagate Hawk 2XL***	1.2GIG	LP	9MS	5400	$ 399	$ 469
Seagate 32105N	2.1GIG	LP	9MS	5400	$ 550	$ 620
Conner CFP2107S	2.1GIG	LP	8MS	7200	$ 759	$ 829
Seagate 32155N	2.1GIG	Ultra SCSI	9MS	5400	$ 599	$ 669
Quantum Capella	2.2GIG	MR	8.6MS	5400	$ 525	$ 595
Quantum Atlas	2.1GIG	LP	8MS	7200	$ 695	$ 765
Seagate Barracuda 2	2.5GIG	LP	8MS	7200	$ 715	$ 785
Seagate Barracuda 2W	2.5GIG	LP	8MS	7200	$ 775	$ 855
Conner CFP2107W	2.5GIG	LP	8MS	7200	$ 795	$ 895
Fujitsu M2934S	4.2GIG	MR	8MS	7200	$ 1075	$ 1145
Fujitsu M2934Wide	4.2GIG	MR	8MS	7200	$ 975	$ 1045
Seagate Barracuda 4	4.1GIG		8MS	7200	$ 1135	$ 1205
Seagate Barracuda 4W	4.1GIG		8MS	7200	$ 1255	$ 1325
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Conner CFP4207S	4.2GIG		9MS	7200	$ 999	$ 1069
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-8GIG	Sony 7000 DDS-2* 1.5MB/sec	4MM	$ 1199	$ 1299
-14GIG	Exabyte 8505XL	8MM	$ 2065	$ 2125
-14GIG	Exabyte 8700	8MM		$ 1575
-30GIG	DLT2000XT	1/2"		$ 3299
-40GIG	DLT4000	1/2"		$ 4999
-140GIG	Exabyte-10h Library	8MM		$ 4999
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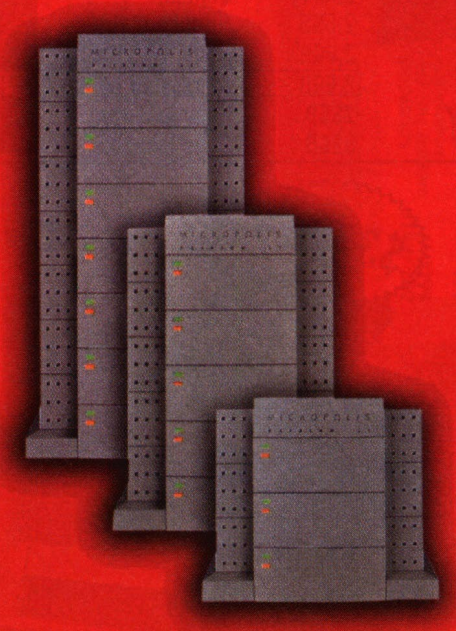

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1.05 GB	DT-51080	Seagate NEW LOW PRICE!	10.0 ms	3 yrs	$269	$344
1.0 GB	DT-1080FB	Quantum	11ms	3 yrs	$269	$344
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2.0 GB	DT-32107	Conner NEW PRODUCT!	8.0 ms	5 yrs	$625	$699
2.0 GB	DT-4221	Micropolis	8.0 ms	5 yrs	$599	$675
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Capacity	Model No.	Mechanism	Seek	Warranty	Internal	PHASER-I
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4.3 GB	DT-14207AV	Conner NEW PRODUCT!	8.0 ms	5 yrs	$950	$1,025
4.3 GB	DT-3243AV	Micropolis NEW LOW PRICE!	8.5 ms	5 yrs	$1,050	$1,125
4.3 GB	DT-15150AV	Seagate Barracuda	8.0 ms	5 yrs	$1,125	$1,225
9.0 GB	DT-1991AV	Micropolis NEW LOW PRICE!	12 ms	5 yrs	$2,050	$2,150
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2.1 GB	DT-4221W	Micropolis 4221Wide	5 yrs	$699	$799
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18.0 GB	DT-1991WAV	Micropolis - Fast/Wide 1991AV (2)	4.0 ms	5 yrs	$CALL

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Syquest 88	$46
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Syquest 270	$60
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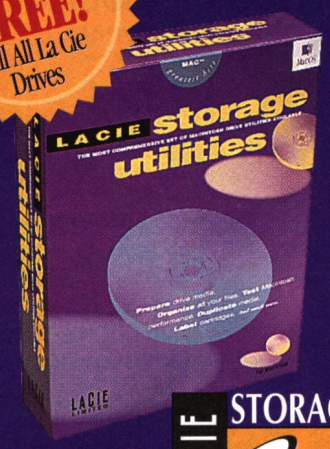

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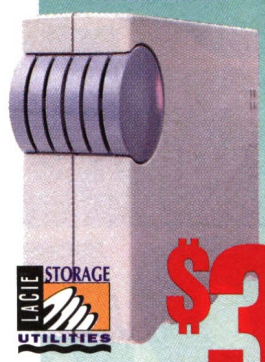

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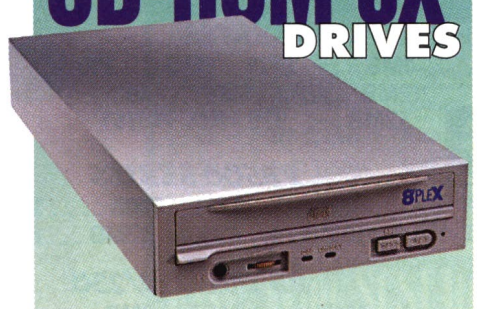

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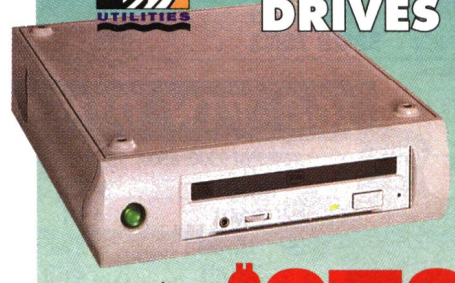

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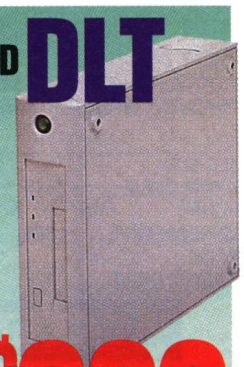

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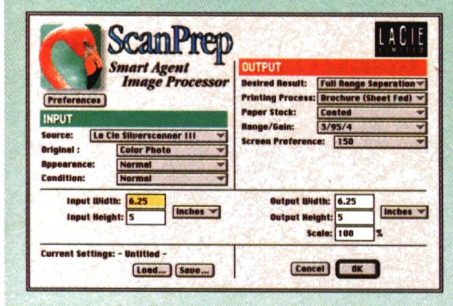

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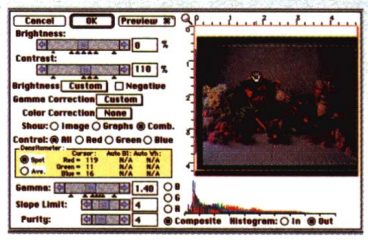

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Syquest SQ2000 200MB	$66 ea.	$65 ea.
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Optical 128MB	$23 ea.	$22 ea.
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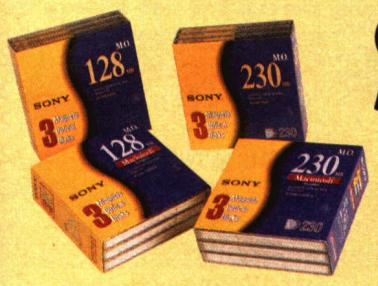

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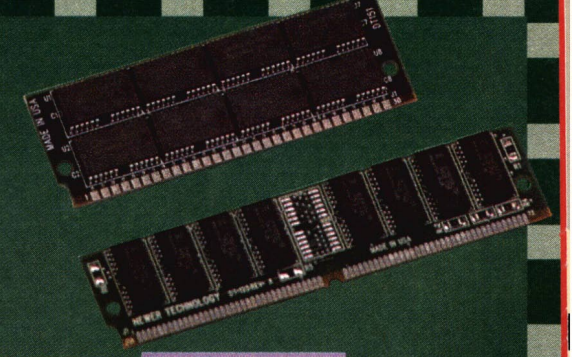

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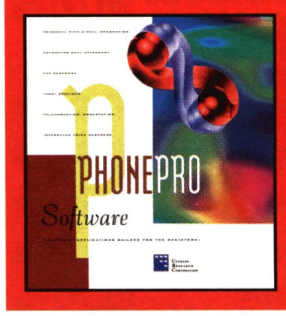

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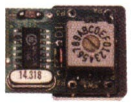

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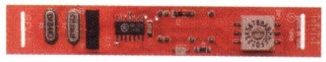

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2 MB Flash Storage Card	99.00
4 MB Flash Storage Card	159.00
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16 MB Flash Storage Card	565.00
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Miscellaneous

68040 processors with FPU	from 179.00
LaserWriter 320 2,4,6 MB upgrades	CALL
LaserWriter Pro 810 4MB/8 MB upgrades	CALL
T.I. MicroLaser 1 MB	39.00
Hewlett Packard printers	CALL
68851 16MHz PMMU	89.00
if requested, MODE 32 software included free w/PMMU	
Mac Portable 3-7 MB Cards	CALL

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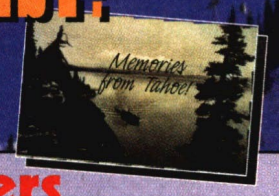

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For PowerMac 9500, 8500, 7500, 7200

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16MB 60/70NS	155
32MB 60/70NS	305
64MB 60/70NS	662

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8MB 60/70NS	65
16MB 60/70NS	145
32MB 60/70NS	299

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4MB 80/70NS	150
8MB 70NS	350
16MB 70NS	650

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4MB 80/70NS	139

STANDARD 30-pin SIMMs

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1MB 70NS	24
2MB 70/80NS	57
4MB 70NS	76
8MB 70NS	218
16MB 70NS	385

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256K	140
512K	229

Mac VRAM

256K	17
512K	28

PowerMac 7200,7500,8500,9500 CACHE

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Laserwriter IIF, IIG	4MB Kit	TP4MM IICI	109
	16MB Kit	TP16MMIICI	495
Laserwriter4/600	4 MB	TPA--LW600/4	165
Laserwriter16/1600PS	4 MB	TP1M3270	105
	8MB	TP2M3270	208
	16MB	TP4M3260L	425
Laserwriter Pro 600, 630	4MB	TP1M3270	105
	16MB	TP4M3260L	425
Laserwriter Pro 810	4MB	TPA-LW810/4	167
	8MB	TPA-LW810/8	299
Laserwriter Select 300	1MB	TP1M8270	29
	4MB	TP4M8870	115
Laserwriter Select 310	1MB	NA	37
	4MB	NA	105
Laserwriter Select 320	2MB	NA	102
	4MB	NA	187
	6MB	NA	260
Laserwriter Select 360	16MB	TP16MSEL360	422

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Global Village TelePort Platinum	$228
Global Village TelePort Gold II	$108
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Global Village PowerPort Mercury PB for the 500 Series and Duo's	$320
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SUPRA 28.8 V.34 S/R Fax Modem	$153
SUPRA V.32 BIS PB Fax	$162
SUPRAEXPRESS 144 Plus/28.8 Ext. V.34	$83/152

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Turbo 66MHZ IIVi, IIVX, Perf 600	790
Powercard 601 50/66MHZ	589

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DeskJet 500, 500C, 510, 550C Plus, 520, 560C	256K Cartridge				42
LaserJet II,IID,III,IIID, IIP,IIP Plus, IIIP	2MB	93	4MB		165
LaserJet IIISi,PaintJet XL 300	1MB	45			
	2MB	85			
	4MB	165			
	8MB	325			
DesignJet 600,650C	4MB	139			
	8MB	299			
	16MB	550			
DesignJet 200,220,	1MB	45			
LaserJet 4, 4M4SI, 4SIMX,	2MB	85			
DeskJet 1200C,	4MB	165			
DeskJet 1200C/PS	8MB	325			
LaserJet 4L	1MB card	49			
LaserJet 5L 1MB 66	2MB 115		4 MB 199		8MB 345
LaserJet 4P, 4MPlus	1MB	45			
LaserJet 4V, 4MV	2MB	85			
Colour LaserJet	4MB	165			
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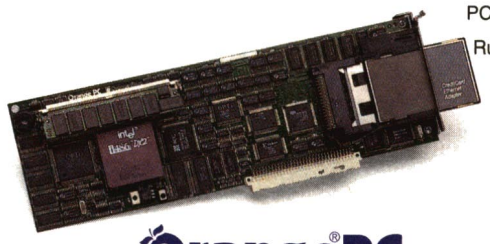

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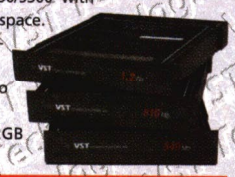

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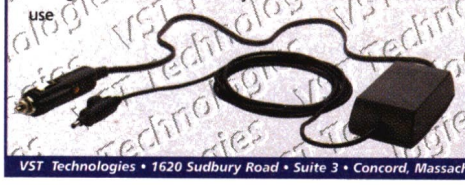

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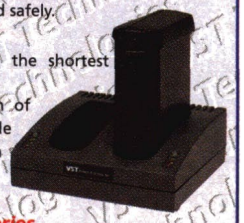

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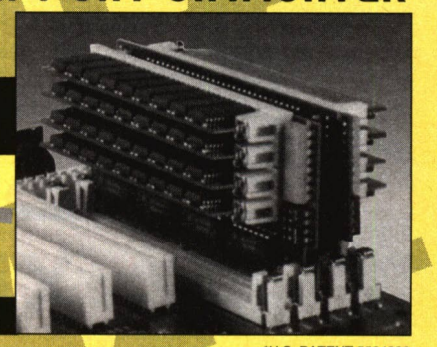

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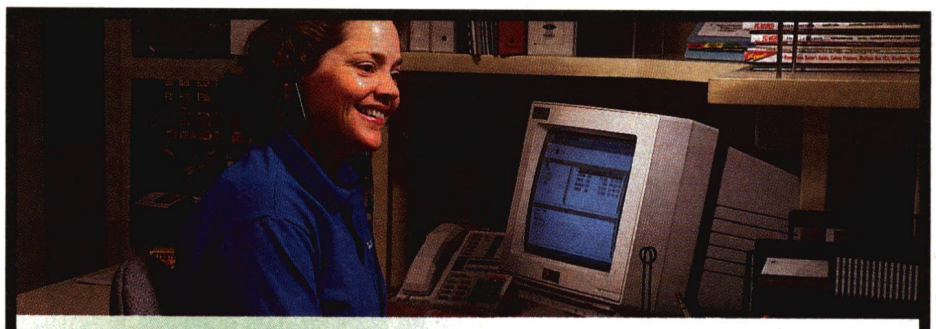

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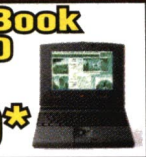

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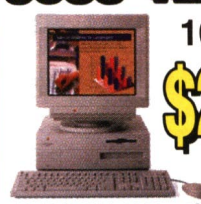

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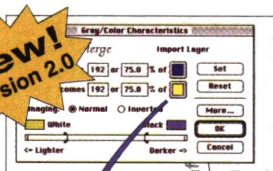

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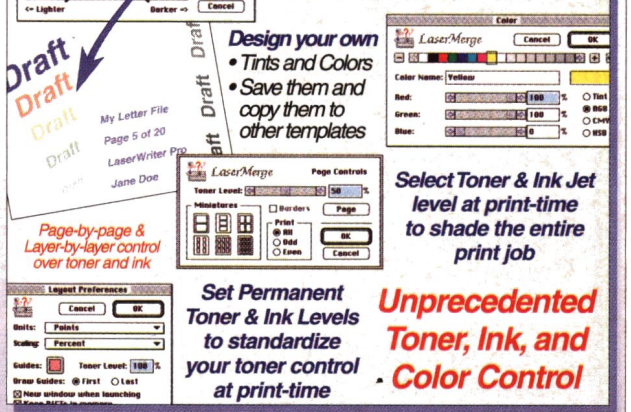

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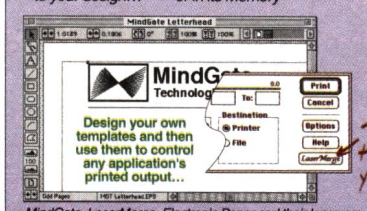

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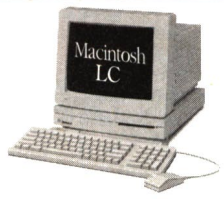

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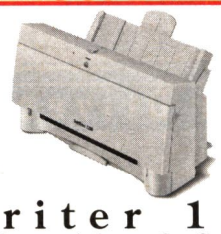

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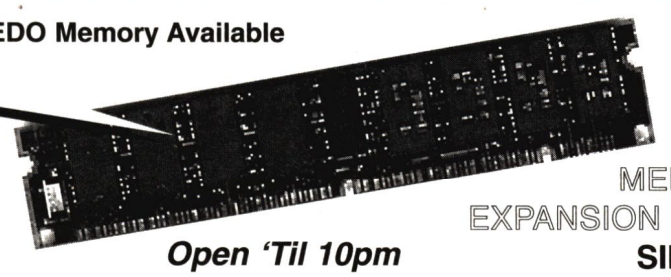

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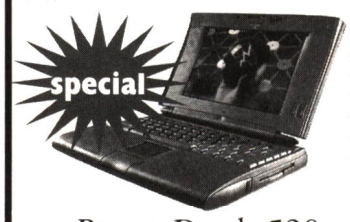

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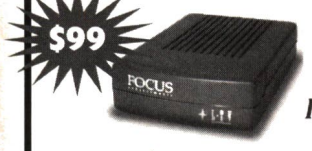

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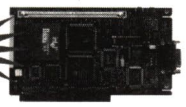

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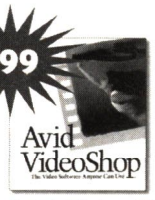

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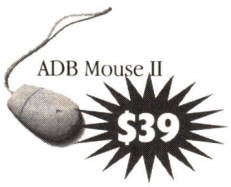

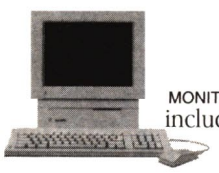

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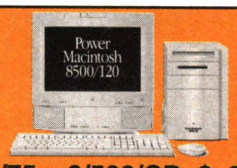

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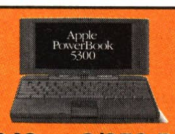

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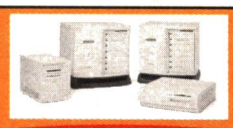

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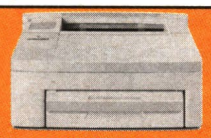

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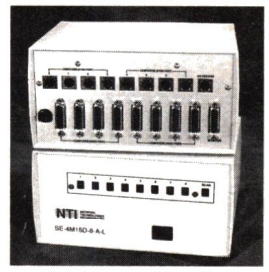

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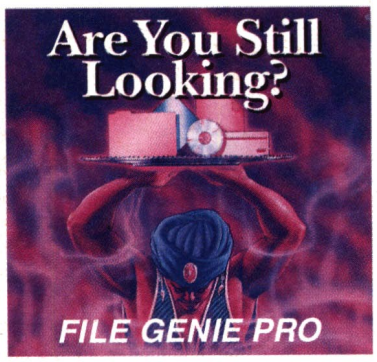

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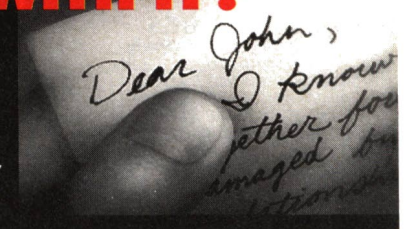

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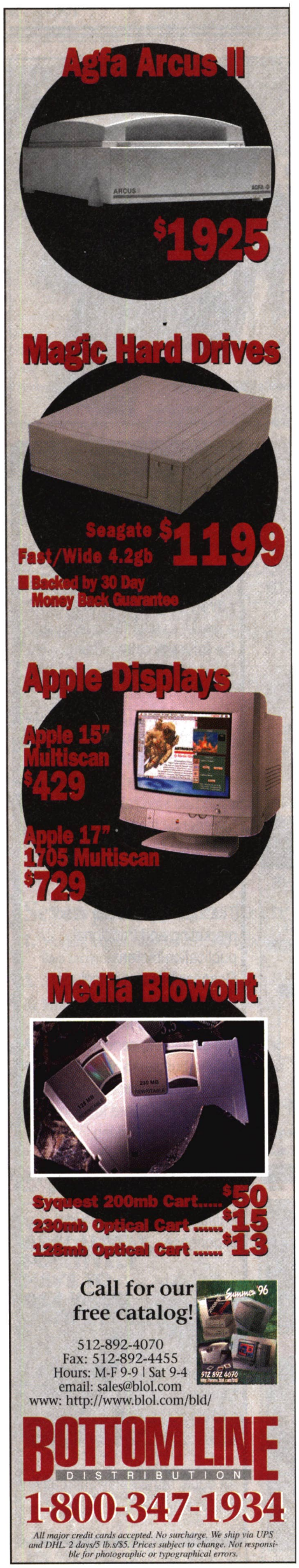
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Apple thinks small

Forges alliance with small-business group

By Leander Kahney

Apple is courting small businesses with the launch of a new Web site this week and a donation of hardware worth $1 million to the Small Business Administration.

The federal agency will receive Power Macs, Workgroup Servers, PowerBooks, printers, scanners and digital cameras during the next few months. Apple declined to give definite numbers, but said the package was worth more than $1 million.

The hardware will be installed in the SBA's 45 Business Information Centers located across the United States. The centers provide free consulting services and resources to construct business plans, prepare loan applications and conduct research.

The computers will be linked to the Internet, where Apple said it hopes the small-business Web site will be influential.

Apple said it is aiming for its newest site (http://smallbusiness.apple.com) to be a one-stop shop for small businesses on the Web.

Along with providing product information, technology tips and start-up stories, the site will be sprinkled with links to dozens of other Web-based resources, including the SBA.

Carol Francavilla, the Apple small-business marketing specialist in charge of the project, said, "We'll not only be highlighting Apple's technologies, we'll be focusing on all the tools a small-business executive might need, including links and information from third parties." □

Apple's latest Web site is fishing for small-business customers. The bait: information and resources for start-ups.

Landi

From Page 1

centralized system, which included geographical divisions run by general managers, to create a more-centralized European organization based in Paris.

Some industry observers have questioned Landi's radical moves. According to some European developers, the sweeping changes have broken long-standing relationships between local divisions and third-party vendors. Landi "has not been afraid to make the hard decisions," one insider said, but he suggested that some of those decisions have been arbitrary.

However, analysts praised Landi's marketing and communications skills. Unlike former Apple CEO Michael Spindler, who also came from the European market to take the COO position in Cupertino, Calif., Landi has maintained a high profile at public events throughout Europe. Besides his highly visible position at Apple, Landi is on the board of the American Electronics Association's European branch.

Landi's tenure at Apple Europe has also been marked by a new interest in the consumer and education markets. He took aim at Europe's long-standing Apple Centres, a network of resellers for business customers, forcing the outlets to look at a more consumer-oriented focus.

Landi was also instrumental in promoting the Performa line in the European market. In a December 1995 interview with Luca Romoli, a journalist with the Italian magazine Applicando, Landi stressed the importance of moving the European Mac market from its traditional graphics focus to productivity, communications, Internet, and the small- and home-office markets.

According to Romoli, Apple Europe has traditionally been more reluctant than its U.S. parent to supply Macs to the education market. However, he said, Landi has cut deals with Acorn Computer Group plc of Cambridge, England, and Ing. C. Olivetti & Co. SpA of Ivrea, Italy, to bolster its presence in that channel.

On the consumer front, Landi in February announced a co-marketing deal with Disney Interactive Europe of Paris to create a series of CD-ROM-based multimedia storybooks containing trailers for Disney films.

Like Amelio, Landi is also a recent convert to the Mac platform; furthermore, both men share an engineering background and long tenures with semiconductor manufacturers.

Before joining Apple, Landi spent 25 years with Texas Instruments Inc.'s European and Asian operations. After heading the semiconductor division for TI Italy, he was vice president and director of semiconductor sales and marketing for TI Europe from 1984 to 1992. TI said Landi was responsible for converting the division's marketing, sales and support operations from country-based organizations to a pan-European operation.

As president of Hong Kong-based TI Asia from 1992 to 1994, Landi increased the company's customer focus and pushed TI toward new markets in China and India, doubling his division's net revenues.

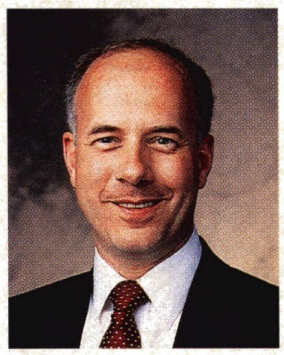
According to a source who worked with him in Asia, "Landi is strongest when he can focus on a few key goals, to which he will give a relentless amount of energy.

"He has good sensitivity toward cultural nuances for Asian markets that should stand him in good stead at Apple," the source said. "Combined with his long European experience, he thinks as a global manager." □

Hello, goodbye for Apple execs

Apple's executive merry-go-round continued to turn last week as the company filled empty positions and saw the departure of some longtime managers.

Apple lost one of its pioneers last week when Fellow Steve Capps left the company. Capps, who had been working on Newton development for the past eight years, joined the company in 1981 to work on the Apple Lisa. Later he was instrumental in development of the Mac OS Finder.



James R. Groff rejoins Apple as senior vice president.

Returning to the fold, James R. Groff, former vice president of education markets, last week was named senior vice president of the newly formed Information Appliances division. He will oversee development and product marketing for products based on the Newton OS and Pippin technologies.

Groff left Apple in January as part of an exodus of senior mangers preceding the ouster of former CEO Michael Spindler. Before commanding the educational marketing group, Groff ran Apple's server and LAN products business.

In addition, Apple appointed Edgar S. Woolard Jr. to its board of directors. He is also chairman of the board at E.I. du Pont de Nemours & Co. of Gibbstown, N.J.

Woolard takes the place of Peter O. Crisp, general partner of Venrock Associates of New York, who stepped down after 16 years as an Apple director.

Also last week, Apple said Steve Vamos, vice president and managing director of Apple Australia, will head the company's Asia sales operations. Vamos replaces Robin Abrams, who is moving into the presidential office for Apple Americas (see 06.03.96, Page 1).

— By MacWEEK staff

CompuServe taps MS tech

By James Staten

CompuServe Inc. last week got specific about how its plans to bring its online service to the Internet. The Columbus, Ohio-based company will use Microsoft Corp.'s technology.

On the back end, CompuServe has licensed Microsoft's server platform, codenamed Normandy, which consists of the Microsoft Internet Information Server running on Microsoft Windows NT. On the client end, CompuServe will integrate Microsoft's Internet Explorer Web browser with its Mac and Windows clients for the CompuServe Information Service, SpryNet and WOW!

In return, Microsoft will put CompuServe in the Windows 95 installer and grant the service an icon on the desktop.

Macintosh users will see the first evidence of this alliance in MacCIM 3.0, due later this summer. The Web client will feature the built-in Microsoft Web browser.

In a conference call, Bill Gates, CEO of Redmond, Wash.-based Microsoft, said the browser deal with CompuServe is "nearly identical to the deal" made earlier this year with America Online Inc. of Vienna, Va.

The agreement came as another blow to Netscape Communications Corp. of Mountain View, Calif., which struck deals with CompuServe and AOL earlier this year to bundle its Navigator Web browser, but Netscape did not secure Navigator as the default, integrated Web client. Navigator is now a secondary choice for members.

"It's really not clear yet how this will affect us," said Stan Mai, Netscape product manager for commercial applications. "Internet Explorer still doesn't have [Sun Microsystems Inc.'s] Java and the support for dynamic media that we do. If people want to visit sites that use these features, they will need Navigator." □

Speed

From Page 1

processor systems using the 180-MHz 604e in the same time frame.

If met, these release schedules would dramatically narrow the gap between CPU availability and shipments of finished systems. Neither Motorola Inc. nor IBM Corp. has publicly said when the PowerPC 604e will ship, although in May both companies announced they had completed designs for 166-, 180- and 200-MHz versions of the 604e.

"We expect to make our announcement of availability in the third quarter," said Will Swearingen, manager of product marketing at Motorola's RISC Microprocessor Division in Austin, Texas. "The 604e is moving forward very aggressively. We're planning on revving that quite quickly and hope that several customers will be able to move up their schedules."

Pam Olson, spokeswoman at IBM's Microelectronics division, based in East Fishkill, N.Y., said, "We're a little bit ahead of ourselves in terms of what we thought we'd be able to do with 200 MHz." Olson said IBM expects to release 604e chips that run faster than 200 MHz. She added, however, "We haven't even announced any higher speeds yet."

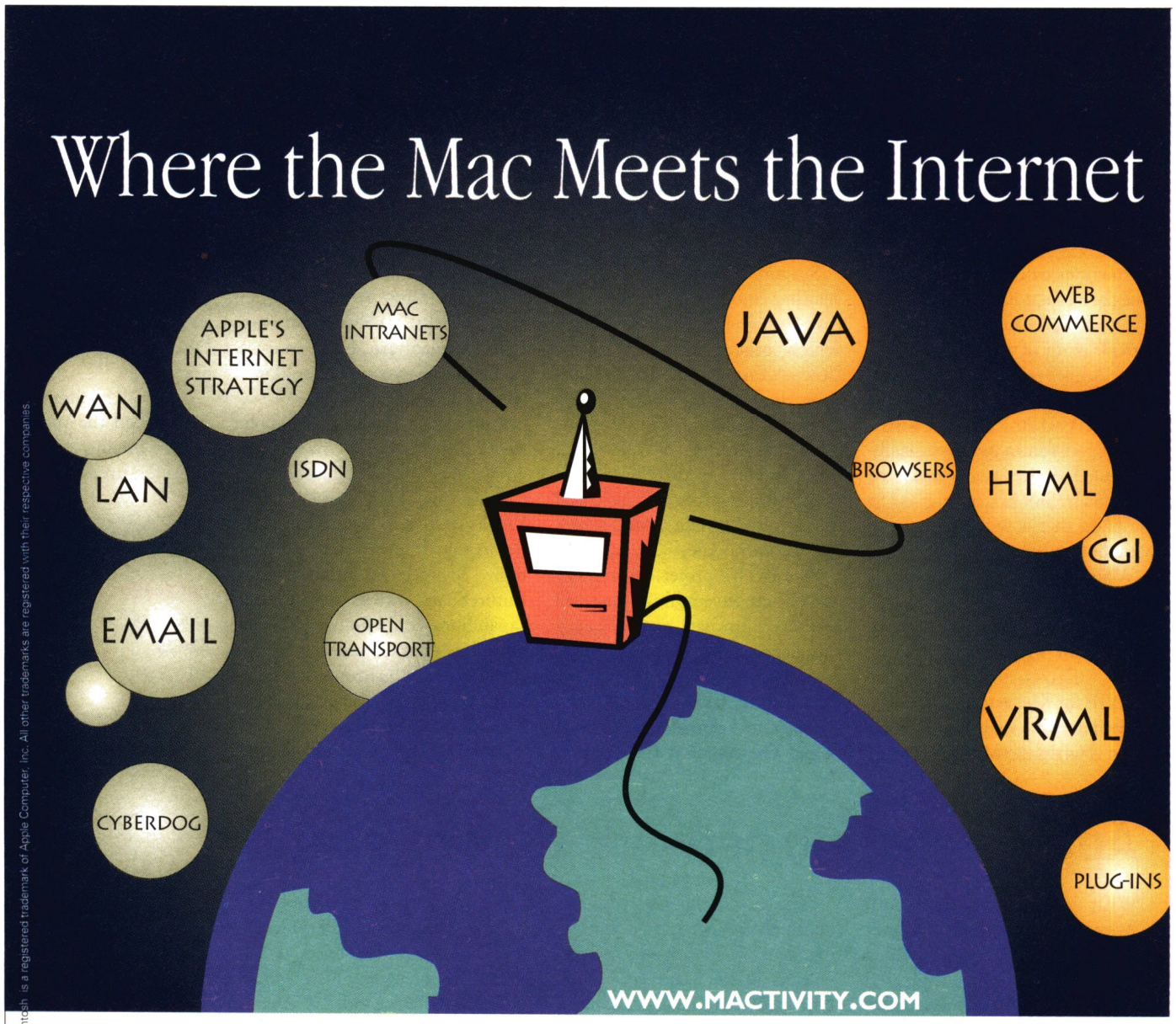
While industry sources agreed that 180-MHz 604e processors will likely be available this summer, they were skeptical that Power Computing could soon release systems using processors above the 200-MHz mark.

In related news, Motorola last week shipped the 200-MHz PowerPC 603e chip and said that Apple; Motorola Computer Group of Tempe, Ariz.; Power Computing; and UMAX Technology Inc. of Fremont, Calif., will integrate the processor in Mac systems by the end of 1996.

This week, Intel Corp. of Santa Clara, Calif., will release the 200-MHz Pentium processor, which many have compared to the 603e. Motorola's 200-MHz 603e will cost $360 for quantities of 1,000, while Intel's 200-MHz Pentium will cost $599 each for purchases of 1,000 units.

DayStar and Power Computing declined to comment. Apple declined to comment on specific systems, saying it will take advantage of faster processors as soon as possible. □

David Morgenstern contributed to this report.



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RAM

From Page 1

Technology Inc. of Wichita, Kan. "I have a hard time believing it can go any lower."

The oversupply of DRAM components, according to Jim Handy, memory analyst at Dataquest Inc. of San Jose, Calif., is primarily for 72-pin SIMMs, which are used in many Quadra systems and all Power Macs except the 5400 and PCI Power Mac models.

A 16-Mbit chip — eight of which are used to create a 16-Mbyte SIMM — sold for $50 about six months ago; last week those chips sold for less than $13 on the spot market.

During periods of excess inventory, prices on the spot market are far lower than prices in the OEM market. In the OEM market, "prices for 16-Mbit DRAM at the beginning of the year were in the mid-40s, and it's not unusual to see sub-20 at this point," said Joe Kraus, associate director for DRAM memory marketing at San Jose-based Samsung Semiconductor Inc., the North American subsidiary of Samsung Electronics Co. Ltd.

Kraus said Samsung expects prices to remain mostly flat during the next several months. "You may see a slight price increase, but I don't think we're going to see the price doubling or anything," he said.

Dataquest research for the second quarter of 1994 showed the DRAM price per megabyte at $27.27; for the second quarter of 1996, Dataquest projects that number to be $16.25 — a 40 percent decrease in two years. The company projects that prices will continue to drop through 1996.

Handy attributed the price drop to a disappointing holiday sales season and said prices were artificially high to begin with. "OEMs were overly optimistic about Christmas sales and were pessimistic about sources of DRAMs. As a result, they had all this extra inventory and decided to lower prices," Handy said.

Scott Olson, sales director at RAM vendor Tahoe Peripherals of Incline Village, Nev., said, "Chips are being dumped by Korean and Japanese companies because of last summer's excess inventory. Now it seems the excess inventory is gone and the price is back up."

In late May, RAM manufacturer Micron Technology Inc. of Boise, Idaho, asked the U.S. Department of Commerce to expedite its annual review of trade practices in the DRAM industry. At the same time, Seoul, South Korea-based Samsung Electronics announced it was reducing its DRAM chip output to stabilize prices.

A May 31 statement from Micron called the practices of two top-producing Korean DRAM manufacturers illegal, alleging that Hyundai Electronic Industries Ltd. and LG Semicon, both based in Seoul, were selling chips below production costs. Micron has accused Hyundai of illegal practices in the past; last week the Commerce Department cleared Hyundai of those alleged trade violations, saying it found no signs of chip dumping.

Almas Kabani, president and owner of The LLB Company Inc. of Bellevue, Wash., said prices last week were higher than the week before. "I don't see prices going down again," Kabani said. "It's a very good time to buy."

Handy said, "What this means is more memory in systems, people retrofitting systems at much nicer prices. We wouldn't be at all surprised if your typical PC doubled its memory size."

Kasten said that when new manufacturing plants in Taiwan begin producing DRAM circuits in December, he expects prices will continue to fluctuate. "It looks like the DRAM market will be a real roller-coaster ride for the next two years," he said. □

FutureShare

From Page 1

in functions with their own OpenDoc parts (see story below).

Sources said OpenAdmin will provide many of the features found in the Apple Network Administration Toolkit, due to ship later in June (see 06.03.96, Page 74). Sources said OpenAdmin was originally scheduled for a later version of AppleShare but has progressed to the point that it will likely arrive with the FutureShare release.

While final testing has not been done, sources said FutureShare should be significantly faster than the current AppleShare, thanks to the use of TCP/IP for file service.

"What will really give it a boom is when the Mac file system becomes native in Copland," one source said.

System 7.5's core software for reading and writing files from disks is still emulated 680x0 code, which makes such operations slow. A faster, native File Manager due in Mac OS 8, codenamed Copland, will also increase the number of concurrent users under FutureShare and boost the number of files and maximum file size a Mac server can accommodate.

Mac OS 8's protected memory and pre-emptive multitasking will further improve FutureShare's speed and stability, sources said.

Apple has not settled on pricing for FutureShare nor decided whether to keep the AppleShare name. The company is reportedly considering other labels that will reflect the software's new capabilities.

In February, the company began bundling Apple Remote Access MultiPort Server software with AppleShare 4.2.1; sources said FutureShare will be sold in a similar bundle.

AppleShare is sold with Apple Workgroup Server hardware. Apple also includes Quarterdeck Corp.'s WebStar server with Workgroup Server machines in the Apple Internet Server Solution. Sources speculated that FutureShare, with its new Internet capabilities, could bump WebStar out of its premier position in the Apple bundle. Quarterdeck of Marina Del Rey, Calif., could not be reached for comment.

Apple declined to comment. □

Apple steps into network-tools market

With its forthcoming OpenAdmin and the Apple Network Administration Toolkit, which is due this month, Apple has entered a software market previously left to its third-party developers.

ANAT will offer screen sharing, software distribution, remote-control, and user- and group-management features similar to those found in Timbuktu from Farallon Communications Inc., FileWave from Wave Research Inc., netOctopus from Datawatch Corp., and Server Manager from Santorini Consulting & Design Inc.

Despite this overlap, John Hanay, senior product manager at Apple, said the $599 ANAT is not meant to compete with third-party network-management tools. He said it was created for education and corporate customers looking for an easy way to manage computer labs, sales teams and training facilities.

Beta testers, however, said it definitely competes. Jack Hunter, manager of network and systems services at the California State University Office of the Chancellor in Los Alamitos, Calif., is considering replacing Timbuktu with ANAT. "Timbuktu is a little more powerful, but for a lab or classroom environment I can see where Network Assistant would be more useful," he said.

Doug Snow, educational facilitator at Flood Brook School in Londonderry, Vt., is seriously looking at ANAT because he said similar third-party products were more expensive and more difficult to learn.

Apple's move into the market does not sit well with some vendors. ANAT "might insult one of their most loyal markets," said Don Ome, marketing director at Neon Software Inc. of Lafayette, Calif. "They might be better off looking to companies like us to help provide these solutions."

But Frank Sauer, president of Wave Research of Berkeley, Calif., said he isn't worried. "It's kind of like an ultralight version of what we do," he said. "We see FileWave as complementary."

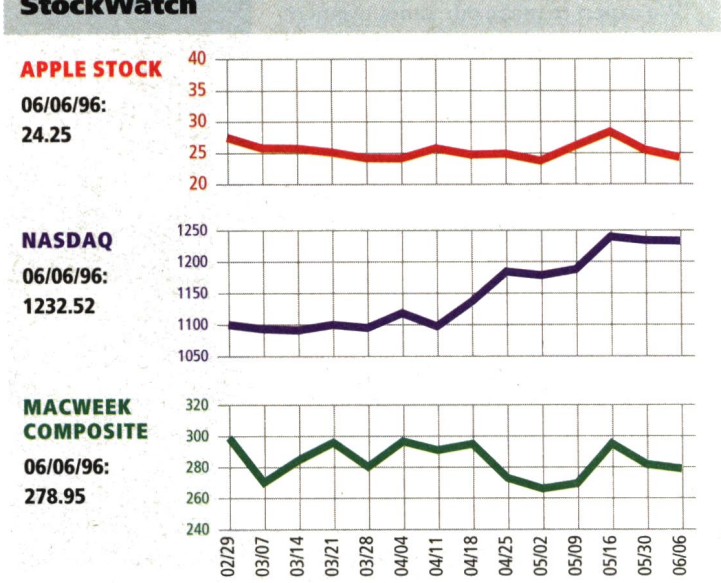
The sting ANAT may inflict on some developers could be soothed by OpenAdmin, which sources said is likely to replace ANAT in the fall.

OpenAdmin, the network-management interface coming with FutureShare, will be built entirely in OpenDoc and let developers replace Apple's built-in tools or easily add enhancements. "That direction helps us a lot," Sauer said.

Nicole Martin, marketing manager for The AG Group Inc. of Walnut Creek, Calif., concurred. "We are open to the idea of writing plug-ins," she said. — *By James Staten*

Clifford Colby and Joanna Pearlstein contributed to this report.

StockWatch



	06.06.96 CLOSE	WEEKLY CHANGE
Apple	24.25	-1.25
MacWEEK Composite*	278.95	-2.89
SOFTWARE DEVELOPERS		
Adobe	35.06	-2.56
Caere	12.50	-0.13
CE Software	2.50	0.00
Fractal	16.88	1.38
Graphsoft	6.88	-0.75
Insignia	10.00	-0.25
Intuit	50.00	0.38
Macromedia	43.00	1.25
Microsoft	119.81	1.69
Novell	14.00	-0.25
Oracle	32.88	-0.38
Symantec	14.50	-1.38
STORAGE		
Iomega	37.88	-7.75
Pinnacle.	8.75	-1.25
Quantum	22.88	-1.06
Seagate	56.50	-1.50
SyQuest	10.00	-0.75

	06.06.96 CLOSE	WEEKLY CHANGE
PERIPHERALS VENDORS		
Ameriquest	0.94	0.00
Asanté	8.13	-0.38
Focus	3.88	0.13
Global Village	11.00	1.13
HP	104.38	-1.50
QMS	5.88	-0.13
Radius	3.13	-0.31
Shiva	72.00	-0.13
Tektronix	37.75	-0.50
Truevision	7.38	-0.13
DISTRIBUTORS		
CompUSA	41.50	-4.13
IE	10.06	0.31
Merisel	4.00	-0.38
Tech Data	22.13	-1.50
INDUSTRY INDICATORS		
Compaq	48.63	1.00
IBM	101.25	-5.88
Intel	75.25	3.75
Motorola	64.13	-1.50
SGI	25.75	-2.00
NASDAQ	1232.52	-0.96

**The MacWEEK Composite is calculated by adding the stock prices of the following companies: Apple, Adobe, Asanté, Caere, CE Software, Global Village, Intuit, Macromedia, Radius, Shiva, SyQuest and Truevision. Source: Nordby International Inc.*

Busy week in Cupertino

By MacWEEK staff

Apple wheeled and dealed last week as the company clinched an Internet exchange, raised a wad of cash, locked horns with the Internal Revenue Service and trimmed its work force.

Apple last week announced an agreement with Excite of Mountain View, Calif., to provide a special edition of Excite's Internet directory service.

Excite will acquire and maintain 5,000 Web-site listings Apple developed but never deployed. Called InGuide, the Web reviews will be sorted into interest areas by user age group. It will supplement Excite's 60,000 existing listings.

Excite said it will provide the featured search engine on Apple's main U.S. Web site and be referenced in the Apple Internet Connection Kit, which will be bundled with every new Mac.

The Apple edition of Excite is due this summer. Although the initial version is aimed at North American users, the two companies will also produce international versions.

Meanwhile, the IRS and Apple are fighting over taxes. The IRS recently said Apple owes about $140 million in back taxes from 1989 to 1991. Apple disputes this estimate and has filed suit; a court hearing has been set for April 1997 if no agreement can be reached.

Apple recently settled an even bigger disputed tax bill with the IRS, which could have amounted to almost $1 billion (see 10.16.95, Page 4). Details of the settlement remain confidential.

Apple's latest dispute results in large part from profits generated overseas. According to the IRS, Apple owes U.S. taxes on sales from machines made in Ireland. The company said its products are not made in Ireland but merely assembled there. Business analysts said this difference is crucial when calculating taxes.

On the layoff front, Apple will cut about 250 of 1,000 jobs at its Sacramento Operations Center in Elk Grove, Calif. The layoffs are part of its plan to reduce its work force by 2,800 in 1996. Apple said it will move its printed-circuit-board assembly work from Elk Grove to Singapore and Ireland, as well as to non-Apple sources.

Apple said it will issue $575 million in convertible subordinated notes to raise cash for working capital and other general purchases. The notes will be due in 2001. □

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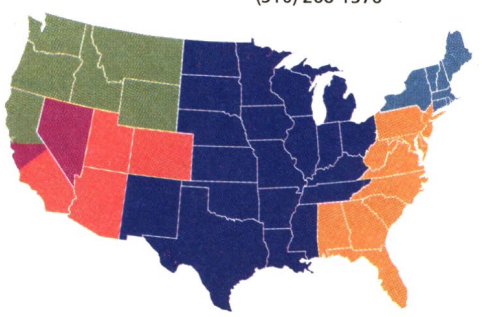

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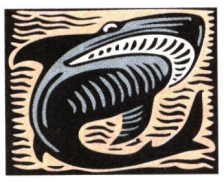

Sweatin' to the oldies

Summer is fast approaching, and, like many of his fellow industry wonks, the Knife has been taking a long, hard look at his squat, flabby corpus. After a long winter of indolence, Mac the Knife must admit he is beginning to look a bit more like Lou the Ladle.

Indeed, the prospect of troweling his fanny into that leopard-skin Speedo swimsuit has been enough for everyone's favorite implement to commit himself to a rigorous slimming regimen.

Thankfully, the Knife is not the only Mac heavyweight donning the proverbial rubber suit in the quest for a streamlined profile.

Take photography behemoth Nikon, which is panting to catch up with the competition at the low end of the digital-camera market. According to the Knife's team of personal trainers, Nikon is on track for late summer with a no-frills digital camera that is essentially a PC Card outfitted with a CCD array and a lens. The mechanism will be sandwiched within a variety of sporty chassis packing batteries and other treats.

The basic version of this low-fat concoction will weigh in at less than $600. Slightly more sinful recipes will fold in a flash, a better lens and a Casio-type LCD screen.

Walk this way

Nor are the good burghers of Cupertino sitting on their assets as the days grow longer. *Au contraire:* The Knife is pleased to discover that, like a grown-up version of the President's Council on Physical Fitness & Sports, Apple is doing its bit to promote today's active lifestyle.

The company is currently sweating the details on Walkabout, a PowerBook utility that will let mobile users alter a variety of system settings based on their location. The app will switch Extensions Manager sets, network connections, the default printer and even the time zone, and it will automatically open a user-specified set of applications on start-up. Sadly, the Knife has been unable to glean whether Apple plans to throw in a set of ankle weights with every order.

A fine specimen

Meanwhile, Power Computing hopes to hone its competitive edge this summer with a pair of all-in-one Mac clones based on PowerPC 603e and 604 chips. These little fellers promise to be a departure from Power's current steroid-enhanced lineup. Nevertheless, the Knife's friends in the urology lab maintain the project is receiving a powerful financial boost from company investor and cloner *manqué* LG Electronics.

Live through this

As in relay races everywhere, when one company drops the baton, another is frequently there to pick it up. GraceLAN, which has been in more hands than Courtney Love, has again been snatched up for a new leg of its seemingly endless journey.

This time, the lucky recipient of the network-administration tool kit is rumored to be Wave Research Inc. (Sports fans may recall that GraceLAN was discontinued in March by McAfee Associates, which bought Saber Software, which bought GraceLAN from TechWorks, which developed it, which chased the cat, which killed the rat, which lived in the house that Mac built.)

Up in the bleachers, the consensus seems to be that Wave is committed to the Mac. In fact, the company reportedly hopes to transform GraceLAN into a suite of OpenDoc parts that can be integrated with the OpenAdmin portion of FutureShare.

The runner stumbles

Finally, the Knife is compelled to drop and give Radius 50 for last week's report that the monitor maker will palm off its PressView line of displays. This notion was obviously the result of excess endorphins; Radius' liposuction treatments will not include the PressViews. □

Exercise your right to free speech! Tip the Knife at (415) 243-3544; fax (415) 243-3651; mac_the_knife@macweek.com.

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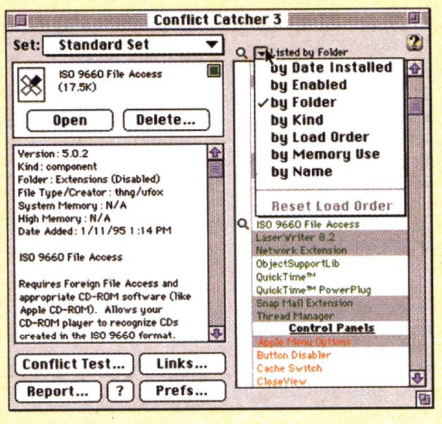

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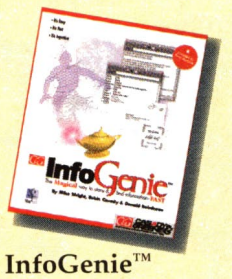

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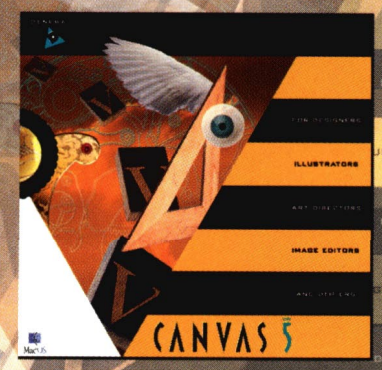

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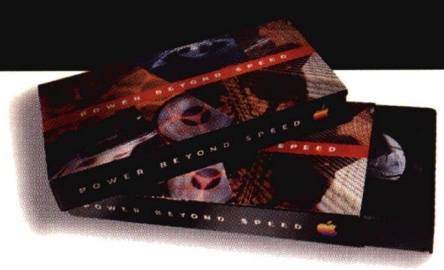

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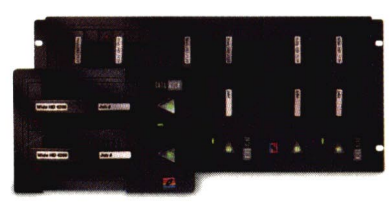

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